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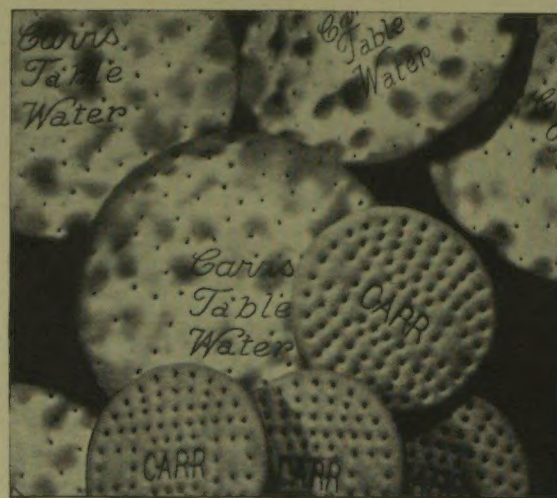
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SATURDAY, MARCH 5, 1932.



THE NEW TRICYCLE: PRINCESS ELIZABETH RIDES IN THE PARK—WITH HER SISTER IN A PERAMBULATOR.

Of those two most popular royal children, Princess Elizabeth of York and her baby sister, Princess Margaret Rose, Princess Elizabeth, by virtue of her years, is naturally the better known at present. This fact—which may be pointed out without raising invidious distinctions—is indeed apparent from their respective positions on the occasion here illustrated! The scene is of particular interest, as it shows Princess Elizabeth in a novel aspect, riding her new tricycle, a pastime

which, it is evident, she thoroughly enjoys, and pursues with complete efficiency. This photograph was taken recently in the Park, where the King's little grand-daughters may often be seen taking the air of a fine morning. Princess Elizabeth, whose birthday occurs on April 21, is now nearly six years old. Princess Margaret Rose was born on August 21, 1930. We may recall that a portrait of their mother, the Duchess of York, was reproduced in colour in our issue of February 27 last.



By G. K. CHESTERTON.

THERE was recently reported in the papers the meeting of certain eminent ladies, of a political and philanthropic sort, who discussed the great modern problem of what is to be done with The Child. I need not say that The Child is always discussed as if he were a monster, of immense size, vast complexity, and strange and startling novelty. Nor need I remind the reader that The Child is not a child: any child we comfortable people have ever seen. The Child is not Jack or Joan or Peter; he is not Cousin Ethel's child or one of Uncle William's children. He is a creature entirely solitary and *sui generis*; and he lives in the slums.

A great many remarks were made, most of them sincere, some of them sensible, and several of them highly comic. I think the passage I like best is one in which a particular female philanthropist said that any poor child would feel happy at the sight of a policeman, so long as he was dressed like a policeman; but that the child might be filled with maniacal terror if he were dressed like an ordinary man. It would seem, that is, that not only are all policemen always kind to all poor people, but that they are the only men who are ever kind to any poor people. I am not The Child, and therefore I was not brought up in the slums. But I know a little more about the slums than that. All these other sayings, however, sink into a second place, in my opinion, compared with one simple remark, which will seem to most people as innocent as it is simple. Nevertheless, in that one artless observation—I might almost say, in that one unconscious confession—was contained the whole complex of contradictions and falsehoods which have in our time ruined the relation of social classes and destroyed the common morals of the community. A very famous political lady, who certainly believes that what she says represents the most lofty luminous idealism, uttered on this occasion the following words: "We must care for other people's children as if they were our own."

And when I read those words, I smote the table with my hand, like one who has suddenly located and smashed a wasp. I said to myself: "That's it! She's got it! She's got the exactly correct formula for the worst and most poisonous of all the political wrongs that rot out the entrails of the world. That is what has wrecked democracy; wrecked domesticity through the breadth and depth of democracy; wrecked dignity as the only prop and pillar of domesticity and democracy. That is what has taken away from the poor man the pride and honour of the father of a household, so that he can no longer really feel any pride or honour in being a citizen; still less in being merely a voter. The Englishman's house is no longer his castle, nor is he king of the castle; the *charbonnier* is no longer *maître chez lui*; his hut is not his hut; his children are not his children; and democracy is dead. She means no harm. She knows not what she does. She does not even understand what she says. She does not comprehend a word of the terrible sentence that she has spoken. But it is spoken." And the

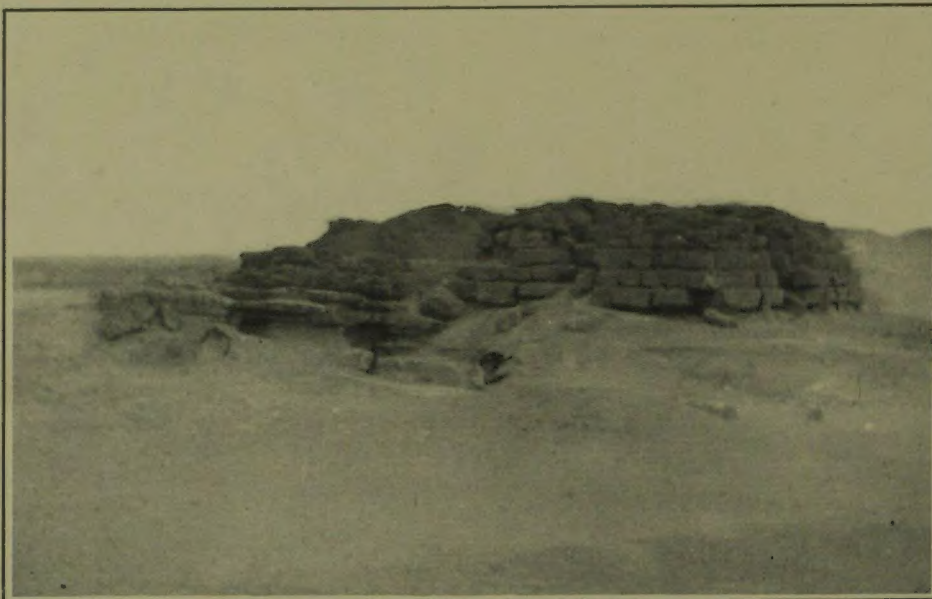
sentence that is spoken is this: "We, the rich, can take care of poor people's children as if they were our own. As we have abolished their parents, they are all orphans."

The ideal is sufficiently familiar in fact, of course; and there is nothing very much against it, except

remain to the other man, who is made legally responsible for his children and his wife. If he ill-treats them, it is perfectly right to put the exceptional legal machinery, which exists for such exceptional evils, in motion against him. But it is not right, by any code of common morals yet recognised among men, to start from the very first with the assumption

that his children belong to you as much as they belong to him. If there is an adequate case against him, it must be proved against him; but we are not dealing here with any such case. We are dealing with a profound plutocratic assumption, accidentally revealed by a chance phrase. The poor children are born under the power and protection of a governing class, as wards in Chancery are born under the power and protection of the Lord Chancellor; they inherit that status, whether our own conscience inclines us to call it a status of slavery or of safety. Note that the lady does not say—though she doubtless would say—"When I hear of a child being beaten with a red-hot poker, the common human bond makes me feel as angry as if it were my own child." She does not deal with hard cases, or even individual cases; she generalises from the start. She assumes that she will, in fact, manage, she assumes that she will be allowed to manage, any other children as if they were her own. And in practice she is probably right; it is the supreme and final proof that in theory she is entirely wrong. Our society has unconsciously and unresistingly admitted this great heresy against humanity. The notion of making the head of a humble family really independent and responsible, like a citizen, has really vanished from the mind of most of the realists of our real world. It is the less wonder that it has never even entered the head of an idealist.

The trouble is that in our society the ideal is more wrong than the real. Old Tories used to insist on teaching to the poor the principles of respect for private property, lest they should revolt and despoil the rich. As a fact, it is the rich who have to be taught about the existence of private property, and especially about the existence of private life. No ragged mob is likely to storm the nurseries of Mayfair, or steal the perambulators from the French nurses, or the pupils from the German governesses, parading in Kensington Gardens. But philanthropists, under various excuses, do really raid the playgrounds of the poor. They regard such a raid as a reform; and, in truth, it is a revolution. Modern writers are very ready to cover great historic events with sweeping denunciations of crime; to say the Great War was murder on a large scale or that the Russian Revolution was theft on a large scale. They hardly realise how much of educational and philanthropic reform has been kidnapping on a large scale. That is, it has shown an increasing disregard for the privacy of the private citizen, considered as a parent. I have called it a revolution; and at bottom it is really a Bolshevik revolution. For what could be more purely and perfectly Communist than to say that you regard other people's children as if they were your own?



THE NEWLY EXCAVATED "QUEEN'S PYRAMID" AT GIZA: THE INCONSPICUOUS TOP ALWAYS (AS FAR AS IS KNOWN) VISIBLE ABOVE THE SANDS, BUT HITHERTO REGARDED AS A MASTABA, OR AN UNFINISHED TOMB—A VIEW FROM THE WEST.



PART OF THE NORTH SIDE OF THE NEWLY IDENTIFIED PYRAMID: A VIEW SHOWING (ON THE RIGHT) THE BEGINNING OF A STREET OF TOMBS (RUNNING BEYOND THE LIMITS OF THE PHOTOGRAPH) AT THE END OF WHICH IT IS HOPED TO MAKE SOME FURTHER INTERESTING DISCOVERY.

Here and on the opposite page we give some interesting photographs, just to hand, showing detail of the newly excavated "Queen's Pyramid" at Giza, the site of which, as seen from the air, was illustrated in our last issue. As noted opposite, Egyptologists differ as to the significance of the new discovery. Doubt had always existed as to the pile of stonework visible above the sand beside the eastern cemetery at Giza, and it was previously regarded as an unfinished tomb or as a *mastaba*. Dr. Selim Hassan's excavations have proved it to be a pyramid of unusual construction built for a Queen hitherto unknown. He has also found a series of rock-cut tombs forming the side of a street running along the north side of the Pyramid and probably out into the desert to a point where he hopes to find some further notable structure. By February 21 eleven tombs had been uncovered, the largest that of Queen Bunefer, and the others those of royal priests. These tombs face the Pyramid, about 15 ft. away, and open into its court.

that it is utterly and grossly immoral. A man saying that he will treat other people's children as his own is exactly like a man saying that he will treat other people's wives as his own. He may get a certain amount of poetic or sentimental pleasure out of the children, but so he may out of the wives. The question is whether any human rights whatever

THE NEW "QUEEN'S PYRAMID": FRESH DETAILS OF THE GIZA DISCOVERY.



WITH TWO HOLES IN THE OUTER WALL BELIEVED TO HAVE BEEN MADE TO ENABLE THE DEAD QUEEN'S KA (SPIRIT) TO WATCH THE SUNRISE OVER THE DESERT: THE ROCK-HEWN ENTRANCE ON THE EAST SIDE OF THE NEWLY EXCAVATED "QUEEN'S PYRAMID" AT GIZA—SHOWING (RIGHT BACKGROUND) THE TOP OF THE SECOND PYRAMID.



ANOTHER VIEW OF THE NEWLY IDENTIFIED PYRAMID AT GIZA: THE ENTRANCE CHAMBER—SHOWING (ON THE RIGHT) PARTS OF THE GRANITE DOOR-JAMBS ON WHICH WERE FOUND THE NAME AND INSCRIPTION OF QUEEN KHENT KAWES, BELIEVED TO HAVE BEEN THE MOTHER OF A PHARAOH OF THE FIFTH DYNASTY.

The photographs given above and on the opposite page illustrate further details of Dr. Selim Hassan's important discovery of the "Queen's Pyramid" at Giza. Since the announcement of the discovery (as recorded in our last number), some controversy has arisen among Egyptologists as to the exact status of the Queen whose tomb it was. For example, Professor Reisner, Director of the Harvard University and Boston Museum joint expedition, does not regard her as a reigning monarch, because her name is not enclosed in a cartouche, and holds that the monument cannot claim to rank as the Fourth Pyramid of Giza, but only with the seven smaller queens' pyramids surrounding the greater three. An official *communiqué* issued by the Egyptian Department of Antiquities, however, in

describing Dr. Selim Hassan's excavations, said: "In the south-east face-(of the Pyramid) a large chamber was cut in the rock, and the entrance has jambs of single blocks of granite 3 metres (about 10 ft.) high. Carved on their faces are identical inscriptions giving the name and titles of the owner, proving that the pyramid was built for an important queen whose name was Khent Kawes. She is called 'King of Upper and Lower Egypt, Mother of the King of Upper and Lower Egypt, Daughter of the God (i.e., the King), of whom all good things which she has done are told.' The facts which can be gathered from this inscription are of exceptional importance. First, the question as to the ownership of the Fourth Pyramid is now settled."

THE ROCKET AS AID IN SOLVING AIR PROBLEMS.

MYSTERIES OF THE UPPER AIR. THAT SCIENCE MAY REVEAL BY THE USE OF ROCKETS: SECRETS OF THE HIGH ATMOSPHERE—TEMPERATURE, DENSITY, COMPOSITION, AND COSMIC RAYS.

By DARWIN O. LYON, M.A., M.D., Ph.D. (See Illustration opposite.)

The rocket has now reached its highest, or "culminating," point. An automatic device releases the tip containing the registering apparatus, freeing it from the empty shell. Since at these heights the atmosphere has disappeared, the apparatus will fall many miles before the parachute opens. There will be no jar or shock, as the atmosphere is so tenuous that it offers practically no resistance.

The last section (Section III.) is here seen in full action. The rocket is now no longer guided by fins, and depends on the gyroscope to keep it straight.

last year another of his rockets failed in its object by exploding prematurely. This accident occurred on February 2, 1931, on Mount Redorta, in Italy, some thirty miles from Milan. Later in the year Dr. Lyon spent some time at the Meteorological Observatory in Tripoli,

Section II. is now exhausted (at a height of 40 to 50 miles), and the last section (in the head of which is the registering apparatus) starts up its own explosions. Already the speed should be considerably over one mile per second.

North Africa, where, last September, he fired the second of his trial, or "preliminary," rockets. The drawing given on the opposite page illustrates the more imaginative side of the subject—the possibilities of the rocket as a means of flight to the moon, which Dr. Lyon himself says is a prospect of the very, very far future, if it ever happens at all!

The second section is here seen in full action. It possesses not only the speed already acquired from Section I., but whatever velocity it may add thereto.

take an increasing interest in rockets—be it in the physical principle involved, or in their use in propelling automobiles, aeroplanes, or what not. That, however, the rocket may also serve Science, has, I think, been proven by my own experiments, and it is concerning this aspect of the problem that I write—viz., the use of the rocket in scientific research.

The lowermost section, having expended its fuel (at a height of about five miles), is here seen dropping off. The second section, having become ignited, continues onward of its own accord.

point only those facts that have been well authenticated and proven by experiment. Neither meteorology nor geophysics are exceptions to this rule. We have all sorts of theories concerning the upper reaches of the atmosphere—some based on observation, others on mere assumption—but the fact that so many of these hypotheses disagree proves how little we really know of the realm in question. Concerning the first ten miles of the atmosphere we are fairly well informed, but after this our knowledge is based on theory, the validity of which is for the most part open to question.

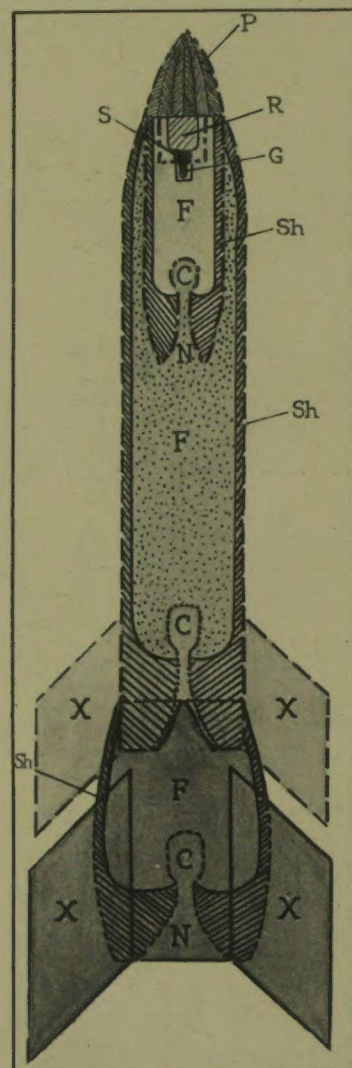
The entire rocket is here seen leaving the earth; with only the lowermost section working.

Dr. Darwin O. Lyon, the American physicist, who is well known for his scientific experiments with rockets for the study of the upper air, here outlines various problems in meteorology which he hopes to solve by this means. He recalls the fact that a rocket which he fired in 1929 reached a height of nearly six miles. During an experiment

IF Press notices are any criterion, the public would appear to take an increasing interest in rockets—be it in the physical principle involved, or in their use in propelling automobiles, aeroplanes, or what not. That, however, the rocket may also serve Science, has, I think, been proven by my own experiments, and it is concerning this aspect of the problem that I write—viz., the use of the rocket in scientific research.

Science is today essentially experimental. It begins by discarding all *a priori* conceptions, and takes as its starting-point only those facts that have been well authenticated and proven by experiment. Neither meteorology nor geophysics are exceptions to this rule. We have all sorts of theories concerning the upper reaches of the atmosphere—some based on observation, others on mere assumption—but the fact that so many of these hypotheses disagree proves how little we really know of the realm in question. Concerning the first ten miles of the atmosphere we are fairly well informed, but after this our knowledge is based on theory, the validity of which is for the most part open to question.

As to the density of the atmosphere, we know that it decreases by nearly one half with every three miles that we ascend, and this decrease is undoubtedly fairly constant for a hundred miles or more; but concerning temperature—a considerable difference of opinion prevails. Authorities agree that for the first six or eight miles the temperature decreases by about 5° Centigrade with every kilometre of ascent; but once we are beyond this height, or, to be exact, once we have passed the "inversion layer," we know next to nothing. Some authorities claim that at a height of twenty-five miles a temperature lower than that at the South Pole prevails; while others hold that at this height a temperature comparable to that of our hottest summer days would be encountered. This latter is the opinion generally held to-day, but the question will probably never be definitely settled until temperature-recording instruments have been sent up there. The sounding balloon has "fallen down" on the job, and I see no way left except the rocket.



A ROCKET CONSTRUCTED IN THREE SECTIONS, OR "STEPS," DESIGNED TO CARRY IT UPWARD IN TURN (AS IN DIAGRAM ON LEFT OF THIS PAGE), THE TWO LOWER ONES DROPPING OFF AS EXHAUSTED, AND THE UPPERMOST ONE RELEASING A PARACHUTE WITH REGISTERING APPARATUS ON REACHING THE "CULMINATING" POINT.

The above is a diagrammatic sketch of a "three-step" rocket. The lower, shaded portion represents the first "step." Above this is the second "step," inside of which, and in reality forming its tip, is the third "step." This third "step" differs from steps I. and II. in that it has no fins; in its front part are the registering apparatus and parachute. The letters indicate—X, fins; F, fuel; C, combustion chamber; N, nozzle; Sh, shell; G, gyroscope; R, registering apparatus; S, spring; P, tip covering parachute.

air at sea-level (nitrogen, 78 per cent.; oxygen, 21 per cent.; argon, 1 per cent.), and know that this does not change appreciably for fifteen miles or so. Once we have passed the inversion layer, however, it would appear that nitrogen, at the expense of oxygen, starts to increase (I refer, of course, to per cent. and not to actual amount), and at a height of forty miles, if our theories are correct, over 90 per cent. of the atmosphere consists of nitrogen, while oxygen has fallen to less than 7 per cent. The remaining 3 per cent. would appear to consist of hydrogen. (It may interest the reader to know that at this height the density of the air is not even one fifteen-thousandth of that at sea-level.)

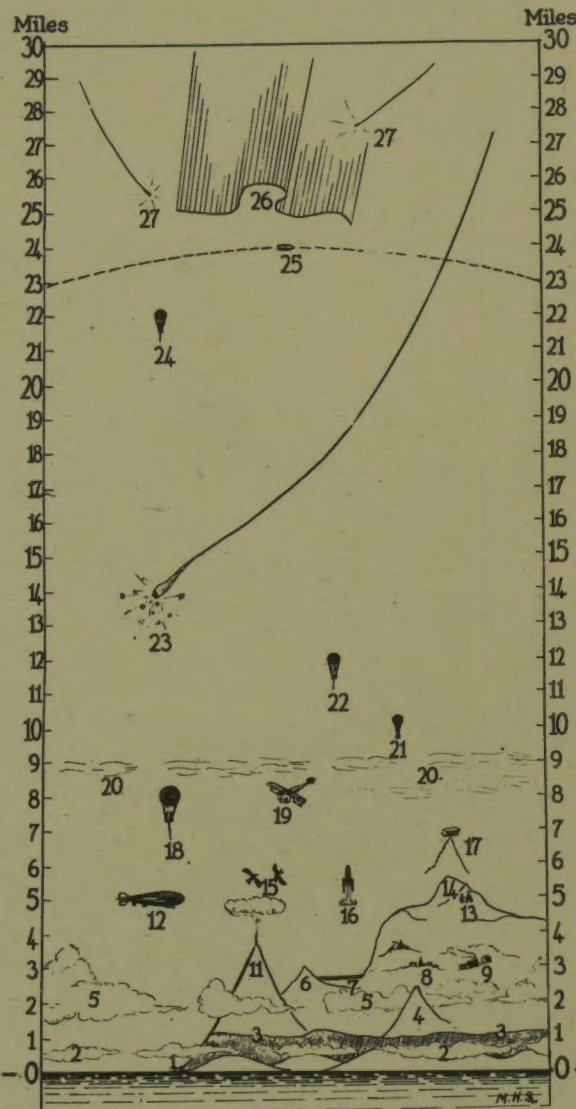
Another problem that the rocket will solve—a problem that is of interest to physicist and chemist, meteorologist and astronomer—is that of hydrogen. At sea-level this gas is barely to be detected by the finest analyses, but we have every reason to believe that at a height of sixty miles it comprises the major constituent of the atmosphere. As yet, no sounding balloon has brought down a sample which, when analysed, showed an appreciable increase in the percentage of this gas. According to the late Professor Wegener (the famous German meteorologist), at a height of forty miles the atmosphere should contain nearly 10 per cent. of this gas. According to

my own estimates, the percentage of hydrogen at this height should be nearer 5 per cent.

A further problem that interests the physicist and meteorologist alike is that of ozone. Fortunately for mankind this poisonous gas occurs only in the minutest quantities in the air we breathe. (There is a popular idea that sea, forest, and mountain air are beneficial "because they are rich in ozone." A two-fold fallacy is here involved. In the first place these "airs" are not necessarily rich in ozone, and if they were it would be injurious for man to breathe them.) We have, however, reason to believe that, unlike oxygen, ozone increases as we ascend, and this not only in composition-percentage, but in actual quantity, and it would appear that the point of maximum concentration occurs at a height of about twenty-five miles. Could it be definitely proven once and for all that ozone is, or is not, in abundance at this height, it would settle several problems that are at present much in dispute. Here, again, the rocket is the instrument that will bring back the answer.

In like manner with the Aurora Borealis. Auroras are for the most part stopped at a height of sixty miles or so, but just how and why is a matter of conjecture. The instruments the physicist uses in studying auroras function not at all in the thick atmosphere of

(Continued on page 368.)



HEIGHTS HITHERTO REACHED BY MAN OR MAN-MADE APPARATUS: A DIAGRAMMATIC COMPARISON WITH VARIOUS NATURAL PHENOMENA AND CERTAIN FAMOUS MOUNTAINS AND BUILDINGS.

1. Empire State Building, N.Y.	1250 ft.
2. Stratus Clouds	1500-3000 ft.
3. Tree-line of Europe	6000 ft.
4. Mt. Fujiyama	2.3 miles
5. Cumulus Clouds	1.5-4 miles
6. Mt. Blanc	3 miles
7. Tengri-nor, Tibet	2.8 miles
8. Highest Human Habitation	3 miles
9. Highest Railway Station	3 miles
10. Highest Grazing Herds	3.5 miles
11. Cotopaxi	3.7 miles
12. Highest Point to which a Zeppelin can Ascend	5 miles
13. Highest Mountain Ascent (on Everest), Mallory and Irvine	5.2 miles
14. Mt. Everest (Summit)	5.5 miles
15. Condor	5.6 miles
16. Rocket sent up by Dr. Lyon	5.9 miles
17. Kite	7 miles
18. Balloon (Capt. Gray)	8 miles
19. Aeroplane (Lieut. Soucek)	8.15 miles
20. Cirrus Clouds	9 miles
21. Balloon, Prof. Piccard, May 27, 1931 (51,458 ft.)	9.7 miles
22. Sounding Balloon with Instruments	12 miles
23. Average Meteor (Exploding Point)	20 miles
24. Sounding Balloon without Instruments	22 miles
25. German Gun that bombarded Paris	24 miles
26. Northern Lights, Curtains	25 miles
27. Lowest Shooting Stars	25 miles

Section III
Section II
Section I

A THREE-STEP ROCKET IN FLIGHT: STAGES SHOWN IN DIAGRAM.

IN A MOON-BOUND ROCKET! A FANTASY OF THE FUTURE.

DRAWN BY C. E. TURNER, FROM A SKETCH BY DR. DARWIN O. LYON, M.A., M.D., Ph.D. (SEE HIS ARTICLE OPPOSITE.)



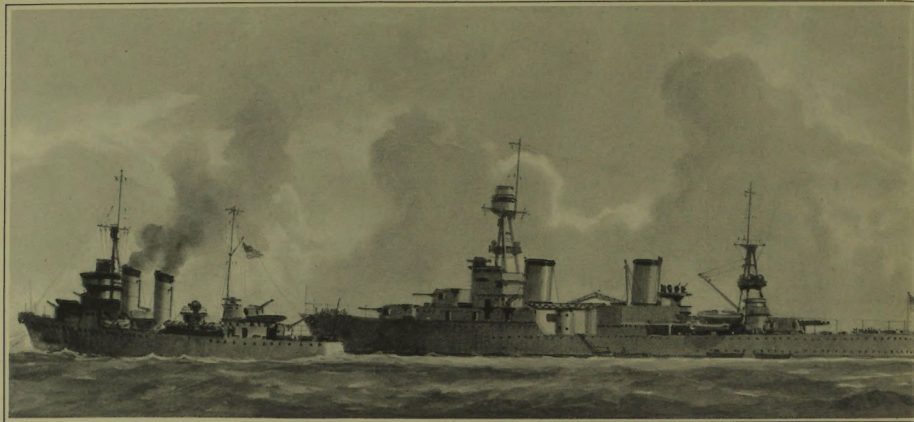
**"ALL OBJECTS ARE ABSOLUTELY WITHOUT WEIGHT AND EITHER FLOAT IN THE AIR OR STAY WHERE PUT":
AN IMAGINARY SCENE INSIDE A ROCKET DURING A FLIGHT TO THE MOON.**

In his article opposite, Dr. Darwin O. Lyon confines himself to scientific problems of the air, for the solution of which he uses rockets. He hardly touches on the possibilities of rockets large enough to hold human observers, or on the fascinating, but at present fantastic, idea of flights to the moon or the planets. While admitting that this phase of the subject interests the public most, Dr. Lyon finds such speculations often exaggerated in popular comments. He has, however, placed at our disposal several hitherto unpublished sketches made for the purposes of a lecture, in which he had to explain the physical conditions that would prevail in a "space ship"—if such a thing could be—

during a flight to the moon. Our artist's drawing is founded on one of these sketches, which is accompanied by the following explanatory note: "We here get an idea of how things would look in the rocket during most of its flight—i.e., when it was neither accelerating nor retarding. All objects are absolutely without weight and either float in the air or stay where put. The man on the right, having found it impossible to fill his glass in the usual way, uses a glass tube with rubber ball attached, by which he can suck up water from the carafe and press it into the glass. The passengers are represented as 'floating,' and the grips on the walls aid them in retaining their position."

NAVAL DEVELOPMENTS OF INTEREST TO THE DISARMAMENT

DRAWING AND EXPLANATORY NOTE BY OSCAR PARKES.



"Dewey" Class (5 Ships): Destroyers.

"Indianapolis": 10,000-ton Cruiser.



"Ranger": 13,800-ton Aircraft-Carrier.

"New Orleans," "Astoria," and "Minneapolis": 10,000-ton Cruisers.

LARGE 10,000-TON TREATY CRUISERS; DESTROYERS; SUBMARINES; AND A MODERATE-SIZED

The World Conference on Disarmament, now sitting at Geneva, lends a special interest at present to the fighting forces of the Powers and their recent or projected development. We have dealt with the subject from time to time, and most recently by illustrating certain additions to the fleets of France and Italy, in our issues of January 9 and February 13 respectively. Here we are concerned with the Navy of the United States. In an explanatory note on his drawing given above, Dr. Oscar Parkes writes: "Unlike the rest of the Five Powers, the United States have not yet embarked upon a programme of small cruiser construction owing to the refusal of appropriations for these types, and are still engaged upon the big 10,000-ton Treaty cruisers which are to bring them up to parity with the British Empire. Seven of these are now on the stocks and were intended as sisters to the recently completed 'Houston' class, with an armament of nine 8-inch guns in three triple turrets and a speed of 32.5 knots. Their design, however, has had to be drastically modified in

CONFERENCE: NEW ADDITIONS TO THE UNITED STATES FLEET.

O.B.E., M.B., C.B., EDITOR OF "JANE'S FIGHTING SHIPS."



"Portland": 10,000-ton Cruiser.

1560-ton Submarine (3 Ships).



Fleetilla Leader (1 Ship).

"Tuscaloosa" and "San Francisco": 10,000-ton Cruisers.

AIRCRAFT-CARRIER: FIGHTING SHIPS THAT HAVE STRENGTHENED THE AMERICAN NAVY.

order to improve their sea-going qualities, and about 1000 tons of armour is being worked into them to make them less lively. In the 'Astoria' class the tripod mast has been abolished and the bridge-work and pole mast substituted in accordance with British practice. The aircraft-carrier 'Ranger' is of 13,800 tons and carries eight 5-inch guns only. She is the first of the U.S. carriers of moderate dimensions, and is reported to have a capacity for seventy-six planes, although this is very doubtful. Only one fleetilla leader and five destroyers (out of the ten voted) have been commenced. They will displace 1500 tons and carry four 5-inch guns, and are named after distinguished naval officers—Farragut, 'Dewey,' 'Hull,' 'Worden,' and 'Macdonough.' They are the first destroyers to be built in the U.S.A. since the war. Three submarines are building, the 'Dolphin,' 'Cachalot,' and 'Cuttlefish,' 1560-ton boats with a speed of 18 knots, armed with six torpedo-tubes and one 4-inch gun. Their design is based on the earlier 'Nautilus' class, but the ships are smaller."

TRISTAN DA CUNHA BAFFLES DENTISTS: PERFECT TEETH DESPITE BROKEN RULES.

A BAFFLING problem for dentists is provided by a health inquiry in the island of Tristan da Cunha, during the recent visit of H.M.S. "Carlisle." Mr. Douglas M. Gane, Hon. Sec. of the Tristan da Cunha Fund, writes (in the "Times"):

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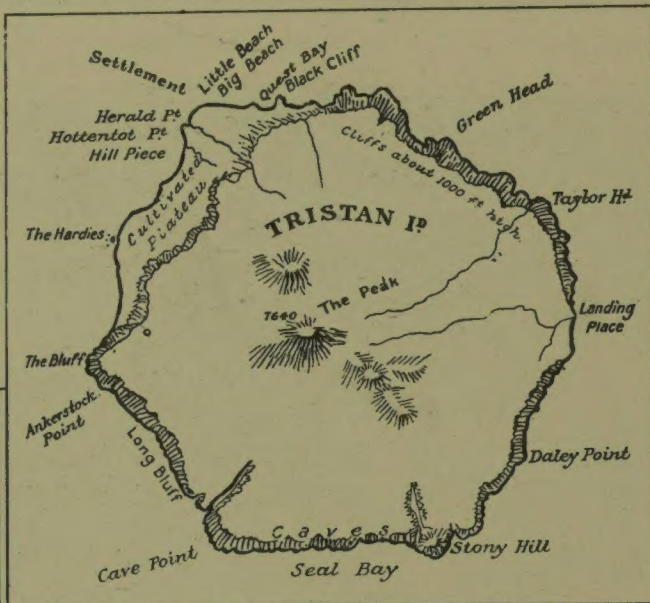


"TEETH" OF THE DEVOURING SEA: THE "NEEDLES" OF TRISTAN DA CUNHA—ROCKS ON THE ISLAND'S WEST COAST WHICH HAVE BEEN THE GRAVEYARD OF MANY SAILING-SHIPS.

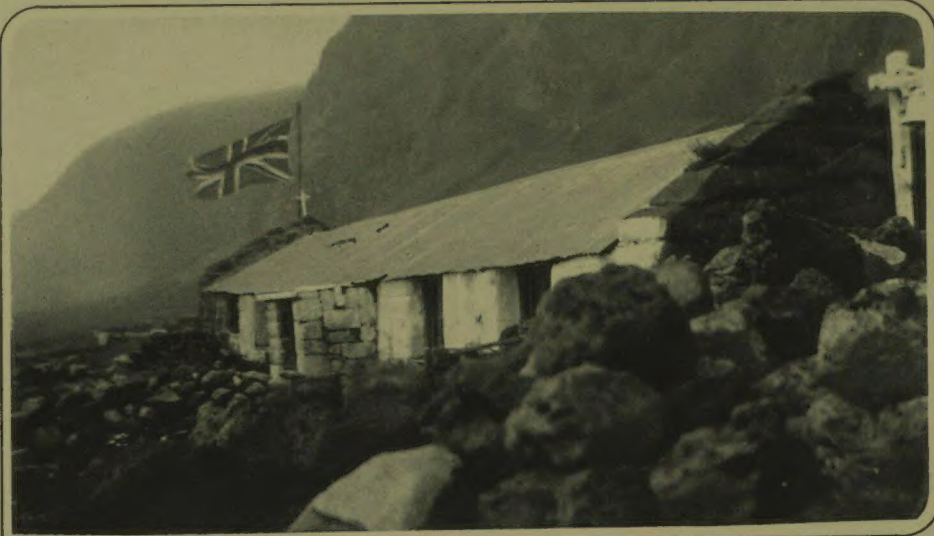
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no diseases, and the only cause of death among them is accident or old age. But on this occasion their dental condition was made the subject of special examination. This was undertaken by Mr. J. R. A. Moore, President of the Dental Society of the Cape Province. . . . 156 islanders were examined, ranging in age from infancy to 92 years, and the teeth of 131 were found entirely free from any decay, and the general condition of them could only be described as perfect. Even the oldest man, Samuel Swain (75) had a complete set, none showing the slightest sign of decay. He was described as a dental marvel. . . . Mr. Moore states

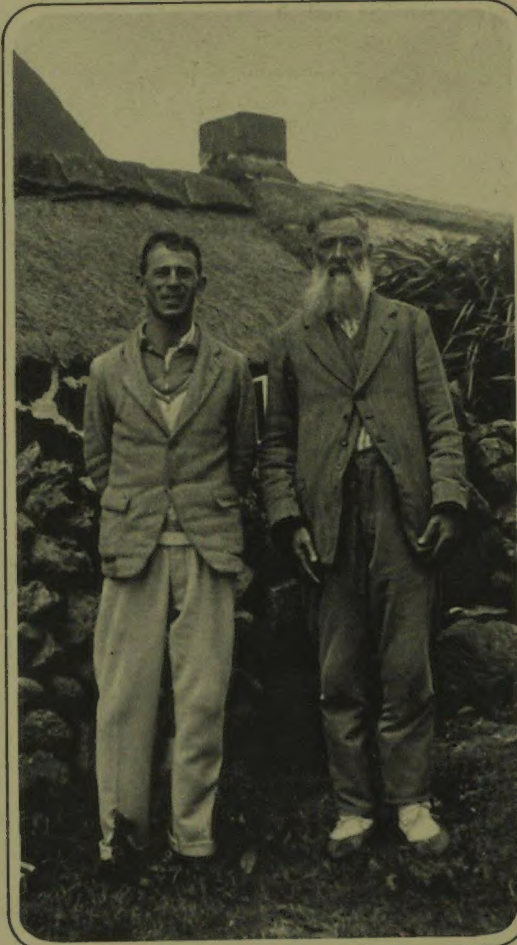
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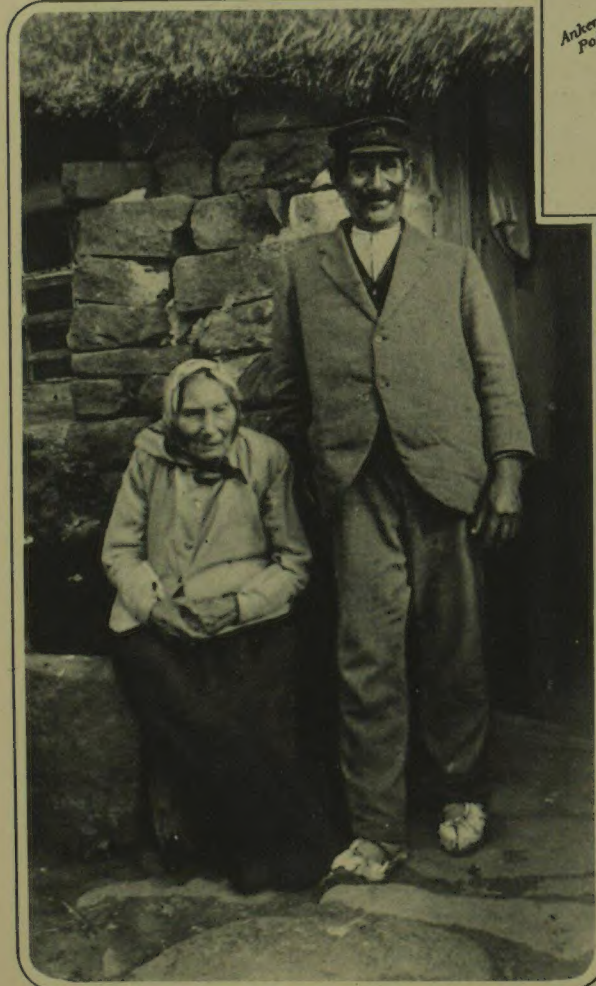
GEOGRAPHY OF THE ISLAND WHOSE PEOPLE HAVE PERFECT TEETH IN CONDITIONS CONTRARY TO DENTAL PRECEPTS: A MAP OF TRISTAN DA CUNHA.



THE ANTIDOTE OF RELIGION AGAINST "THE SERPENT'S TOOTH": THE LITTLE CHURCH OF TRISTAN DA CUNHA—AN OUT-POST OF CHRISTIANITY ON THE LONELY ATLANTIC ISLAND, FLYING THE UNION JACK.



"A DENTAL MARVEL": THE OLDEST MALE ISLANDER, SAMUEL SWAIN, AGED 75, WHO HAS A COMPLETE SET UNDECAYED; WITH A VISITOR FROM H.M.S. "CARLISLE."



THE ISLAND'S OLDEST WOMAN, MRS. MARY GLASS, AGED 92 (GRAND-DAUGHTER OF THE FOUNDER OF THE SETTLEMENT, CORPORAL WILLIAM GLASS), WITH HER SON, BOB GLASS.

(Continued.) that such dental perfection is entirely outside the experience of his profession in any other community, and the puzzle lay in the fact that the conditions under which the islanders lived are in marked conflict with those which modern scientific research lays down as desirable for dental health. 'A clean tooth never decays,' he said, is an accepted axiom, yet the islanders never clean their teeth.



WHERE 131 OUT OF 156 PERSONS EXAMINED WERE FOUND TO POSSESS PERFECT TEETH: ISLANDERS OF TRISTAN DA CUNHA ASSEMBLED ON THE BEACH TO SAY GOOD-BYE TO SURGEON-COMMANDER BEE, OF H.M.S. "CARLISLE," WHO ASSISTED IN THE DENTAL EXAMINATION.

It is a dental maxim that 'hard tack' is desirable for the life of teeth, yet the food of the islanders is entirely soft. The staple diet was potatoes, fish, milk, and eggs. They never eat more than one kind of food at a time." Mr. Gane's "Handbook of Tristan da Cunha" recalls that "Lewis Carroll's" brother, the Rev. E. H. Dodgson, was twice missionary there, in 1880-4 and 1886-9.

AN ALPINE FIEND IN FAIRY FORM: AN AVALANCHE OF POWDERY SNOW.



FROZEN DUST BILLOWING DOWN THE WETTERHORN IN GLITTERING CLOUDS: AN AVALANCHE OF SNOW;
A FALL THAT SPREADS DESTRUCTION BY THE VIOLENT GUSTS OF WIND IT CAUSES.

The avalanche here illustrated differs considerably from the type which sometimes brings destruction to whole villages and overwhelms unfortunate mountaineers and winter-sportsmen in depths of ice, snow, and débris. It is an avalanche of powdery snow such as those which have recently been occurring in the Bernese Oberland. Made up of falls from snowfields which intense cold has pulverised to the consistency of sand, these avalanches start if the equilibrium of the whole mass is unstable from its lying on a steep slope—as frequently happens on the Wetterhorn. As it shoots into empty air, the powdery snow turns into a cloud of frozen dust

rolling downwards, and suggesting the smoke of an old-time cannonade. At the same time, by reason of the fall of such a great mass, there is a sudden compression of the atmosphere, giving rise to gusts of wind so violent as take the roofs off buildings and throw down walls. In fact, in the case of an avalanche of this type, it is the wind, and not the fall of the mass of powdery snow, that works harm. It is thus totally different from the avalanches that fall on the mountain sides in spring—the kind probably best known, and frequently conjured up by story-writers and film-producers.

STREETS "PAVED" WITH DIAMONDS: KIMBERLEY—HOUSE AND ROAD "FINDS."

PHOTOGRAPHS BY DR. JOACHIM VON HEIMBURG.



A "SCRAP OF PAPER" THAT PUT AN END TO THE SCRAMBLE OF MYRIAD ADVENTURERS AT KIMBERLEY: THE CHEQUE FOR £5,338,650 BY WHICH THE DE BEERS COMPANY GAINED CONTROL OF THE DIAMOND MINES THERE IN 1889.



INCLUDING WHAT BECAME THE DEEPEST HOLE IN THE EARTH EVER DUG BY MAN: CRATERS OF THE KIMBERLEY DIAMOND-MINES, WHERE THE OPEN WORKINGS REACHED 450 FT. AND THOSE UNDERGROUND, 3601 FT.



CONSTRUCTED OF DIAMOND-BEARING WASTE LEFT BY THE ORIGINAL MINERS: A ROAD IN KIMBERLEY WHICH PRODUCED PRECIOUS STONES (SEE ADJOINING PHOTOGRAPH).



THE VERY STREETS OF KIMBERLEY YIELD DIAMONDS: MINING OPERATIONS IN THE SAME ROAD AS SEEN IN THE PHOTOGRAPH ON THE LEFT.



A CHURCH (ON THE RIGHT) BUILT FROM THE PROCEEDS OF DIAMONDS FOUND UNDER THE STREET: THE SAME SECTION OF ROAD AT A LATER DATE.



DIGGING FOR DIAMONDS IN THE STREETS AND SQUARES OF KIMBERLEY: A TYPICAL SCENE IN THE TOWN AFTER THE MINES HAD BEEN BOUGHT UP BY THE GREAT COMPANY—ORE-WASHING OPERATIONS.



DIAMOND-MINING WORK BENEATH A KIMBERLEY RESIDENT'S HOUSE (AFTERWARDS RECONSTRUCTED): EXCAVATIONS UNDER THE FLOOR, SHOWING THE TIMBER SUPPORTS.

In connection with the prevalent depression in the South African diamond-mining industry, we illustrated in our last issue the conditions under which native miners are employed. At the same time we recalled the official announcement, on February 18, that the De Beers mines were closing down, but that it was hoped to devise means of preventing the catastrophe. We now give further illustrations that show interesting phases in the development of Kimberley, before and since the control of the mines there was acquired by the De Beers Company in 1889.

Our correspondent who supplies the photographs writes: "Even to-day diamonds lie actually in the streets of Kimberley. Early in the 'seventies of last century (at the time of the first diamond rush) the diggers dug themselves in on their small claims. Each tried to reach first the depth which contained ever richer treasures. Gradually an enormous crater was excavated, and from its depths stretched hundreds of steel wire ropes on which buckets of ore were hauled up to the washing apparatus above. The deeper workings caused subsidences of

[Continued opposite.

KIMBERLEY IN THE "EARLIES": DIAMOND-MINING SIXTY YEARS AGO.

PHOTOGRAPHS BY DR. JOACHIM VON HEIMBURG.



THE
KIMBERLEY
DIAMOND-
MINE AS IT
APPEARED
IN 1875:
A GREAT
CRATER IN
PROCESS OF
EXCAVATION
BY A
MULTITUDE
OF
INDIVIDUAL
DIGGERS,
EACH WITH
A SMALL
CLAIM OF
ABOUT 31 FT.
SQUARE,
THE DEEPER
PITS
CAUSING
SUBSIDENCES
FROM ABOVE
AND
OBLITERATION
OF BOUNDARIES,
WHICH LED
TO VIOLENT
QUARRELS.

COVERED
BY "A
GIGANTIC
COBWEB
OF TAUT
STEEL ROPES,"
STRETCHED
FROM
INDIVIDUAL
DIGGINGS
BELOW TO
THE UPPER
RIM OF THE
CRATER,
FOR HAULING
UP BUCKETS
OF ORE TO THE
WASHING
APPARATUS—
A SYSTEM
REPLACED
BY UNDER-
GROUND
TUNNELS IN
1889: PART
OF THE
KIMBERLEY
MINE IN THE
EARLY
'SEVENTIES
OF LAST
CENTURY.



Continued.

the upper soil, and the divisions between the various claims broke down. The result was the rule of the strongest, and soon murder, theft, and violence were the order of the day. When the De Beers Company took control, in place of thousands of fighting adventurers there was one powerful organisation. An army of native labourers was employed, and soon the 'deepest hole in the world' ever dug by the hands of man came into being. Meantime Kimberley had sprung up. The Great War resulted in serious losses, and now the world crisis naturally affects a purely luxury trade. Nevertheless, the bright little stone has not lost its magic. Kimberley seems to have caught the diamond fever anew.

Its citizens are continually having their houses pulled down in case diamonds had been left there when they were originally built. Economical people have only the inside gutted, while the roof and outside walls are propped up with scaffolding, and the whole structure is re-erected after it has been 'washed' for diamonds. Even the town authorities are seized with this fever, and, remembering how the old miners built up the town with waste material from the mines, they have had the place dug up and have found diamonds. Any private person finding diamonds has to pay the State 10 per cent. Before I knew this fact, I was surprised to see how much building goes on in Kimberley."

TRICKS OF DRUG-SMUGGLING: INGENUITIES OF A VICIOUS TRADE DETECTED IN EGYPT.



DETERIORATION CAUSED BY THE DRUG HABIT: THE FINE PHYSIQUE OF AN EGYPTIAN PEASANT AFTER SOME MONTHS' POLICE TRAINING COMPARED WITH THAT OF AN ADDICT OF THE SAME CLASS.

1.
IN our issue of February 1, 1930, we published an article and photographs dealing with the smuggling of pernicious drugs into Egypt and with the efforts of the Egyptian Central Narcotics Intelligence Bureau, under its director, Russell Pasha, to stamp out this deadly traffic. Here we illustrate certain further devices that have been used by drug-traffickers in the course of the last year, of which the ingenuity bears witness to the increasing difficulties experienced by smugglers in eluding official vigilance. The Bureau has pursued its work with persistent vigour, and the number of addicts in Egypt has been very greatly reduced. In the year ending October 1, 1931, persons sentenced by the courts for drug-addiction numbered under
[Continued in Box 2.]



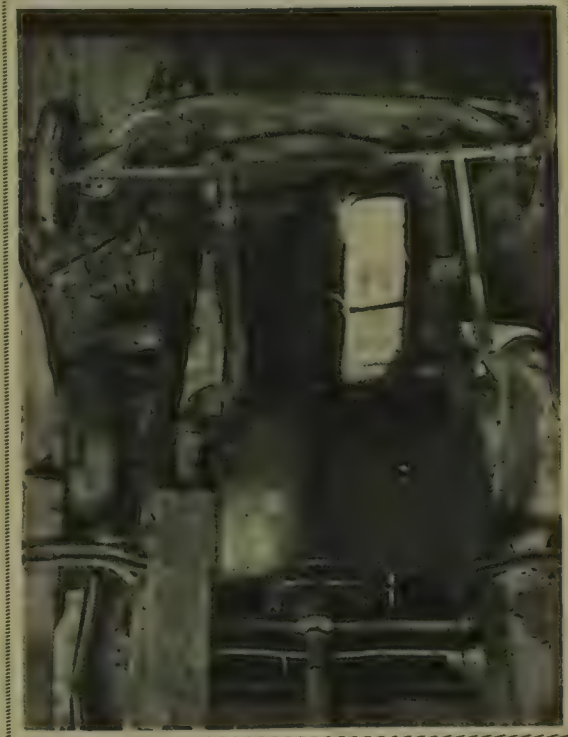
THE HIDING-PLACE OF A PERNICIOUS DRUG: PLATE-RACKS THAT WERE SEIZED IN THE HOUSES OF AN ARMENIAN GANG—SHOWING SOME OF THEIR SECRET DRAWERS, IN WHICH HEROIN WAS HIDDEN, REMOVED.



BAGS STRAPPED TO THE LEGS, ENABLING ONE GIRL TO CARRY NEARLY SEVEN POUNDS OF HEROIN: THE METHOD EMPLOYED FOR SMUGGLING DRUGS INTO ALEXANDRIA IN THE "FANNY CASE."



ONE OF THE MOST INGENUOUS OF HIDING-PLACES: A MOTOR-CAR IN WHICH IT WAS NOTICED, ON CAREFUL EXAMINATION BY THE CUSTOMS, THAT THREE OF THE BOLTS HOLDING THE CRANK-CASE TOGETHER WERE MISSING—A CLUE WHICH LED TO THE DISCOVERY OF FIFTEEN POUNDS OF HASHISH CONCEALED IN THE CRANK-CASE; (LEFT) WITH THE SUMP STILL IN PLACE; AND (RIGHT) WITH THE SUMP REMOVED.



ANOTHER INGENUOUS DEVICE WHICH DECEIVED THE AUTHORITIES FOR OVER A YEAR: SACKS CONTAINING HASHISH AND TOBACCO, BROKEN UP SMALL TO ELUDE THE SEARCHER'S STEEL PROBE, AND PACKED BENEATH A POWDER DERIVED FROM FIR-CONES AND USED IN TANNING, THE SMELL OF WHICH SERVED TO COVER THE SMELL OF THE HASHISH.

2.
3000—a decrease of fifty per cent. in two years. On the other hand, convictions against traffickers have nearly trebled over the same period. This is because the profits of the contraband trade are so great as to offer extraordinary attractions to the unscrupulous: a kilogram (2·2lb.) of heroin can be manufactured for £10 and sold into the illicit traffic for £60 or £70; on arrival in Egypt it will fetch, from £130 to £140 wholesale. When the retailer, after adulterating up to ninety per cent. with boracic or quinine powder, has sold a pinch of the resultant mixture for a shilling, his profits can be well imagined. During the last year most
[Continued in Box 3.]



USED FOR SMUGGLING AN EXTRAORDINARY QUANTITY OF HASHISH INTO EGYPT: TWO OUT OF FOUR MILL-STONES, WHICH, AFTER BEING BROKEN OPEN, PROVED TO BE MADE OF CEMENT AND TO CONTAIN NEARLY TWO HUNDREDWEIGHTS OF THE DRUG PACKED IN WAXED LINEN BAGS AND EMBEDDED IN PLASTER IN THE MIDDLE OF THE CEMENT.

3.
of the world's contraband heroin has been supplied from Turkey, but the Turkish Government has recently passed legislation to prevent this leakage. Heroin may be sniffed, swallowed, or injected subcutaneously, and in every case its effect is practically instantaneous. It makes addicts easily; the habitual consumer soon becomes a demoralised wreck, and suffers terribly if his supplies are withdrawn. The traffickers' methods, as our photographs show, are remarkably ingenious: last year they used hollowed-out water-closet seats, weighing machines, and blocks of paraffin-wax, but, now that such tricks are growing difficult, they are relying more on the complicity of ships' crews and the forgery of documents.

THE WORLD'S HIGHEST BRIDGE—1053 FEET ABOVE THE ARKANSAS RIVER.



A MAGNIFICENT BRIDGE SPANNING A MAGNIFICENT RAVINE: THE ROYAL GORGE OF THE ARKANSAS RIVER, CROSSED BY THE HIGHEST BRIDGE IN THE WORLD; AND (LEFT) THE FUNICULAR RAILWAY ASCENDING THROUGH A CLEFT IN THE ROCK.

In our issue of July 30, 1927, we gave a picture in colours of what was then the highest bridge in the world—a one-arch span four hundred feet above the first gorge of the Zambesi Grand Canyon, two hundred yards below the Victoria Falls. That bridge was built in 1905, by the wish of Cecil Rhodes, that it might form a link in the Cape to Cairo route; and its construction at one of the grandest natural scenes in Africa did nothing to mar the rugged beauty of the Canyon. It will be agreed that the same may be said of the bridge which is

the highest in the world to-day—the Royal Gorge Bridge over the Arkansas River—for in this case, also, an engineering feat in no way detracts from natural dignity. The Royal Gorge is about a hundred miles south-west of Denver, in the state of Colorado, famous for the grandeur of its scenery. The bridge was built in 1929. Its main span is 880 feet long, and the total length of the structure is 1260 feet. The funicular railway was added later, to provide vertical transportation from top to bottom of the gorge.

A CITY OF FIVE THOUSAND TEMPLES: PAGODAS

(SEE ARTICLE



THE SHWEGUOYI TEMPLE (1118 A.D.): A BEAUTIFUL EXAMPLE OF THE BURMESE PAGODA, IN THE SAME STYLE AS THE LARGER GAWDAWPALIN, OR BUDDHA'S THRONE.



THE NANPAYA TEMPLE, BUILT OF STONE AND DATING FROM THE MIDDLE OF THE ELEVENTH CENTURY: THE PALACE, ACCORDING TO TRADITION, OF THE CAPTIVE KING OF THATON.



THE BUPAYA PAGODA, WITH ITS SMALL BULBOUS STUPA OF NORTH INDIAN ORIGIN: ONE OF THE OLDEST MONUMENTS OF PAGAN, DATING FROM ABOUT 200 A.D.



THE THATBYVINNU TEMPLE, OF THE TWELFTH CENTURY: A BUILDING WHICH GIVES "A SENSE OF ASPIRATION AND MAJESTY BY THE NUMEROUS SOARING LINES—THE POINTED ARCHWAYS, THE FLAME PEDIMENTS OF DOORWAYS AND WINDOWS, AND THE SERIES OF STUPAS."



THE THIRTEENTH-CENTURY MAHABODHI TEMPLE: A BUILDING COPIED FROM THE FAMOUS INDIAN SHRINE AT BOGH GAYA.



THE PRIDE OF BURMESE ARCHITECTURE, GLITTERING WHITE IN THE SUNSHINE: THE ANANDA PAGODA, BUILT IN 1091 A.D. IN THE SHAPE OF A GREEN CROSS, FOUR GREAT PORCHES PROJECTING.

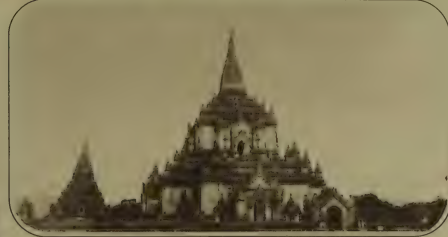
In the days of its greatness, which began in the middle of the eleventh century and lasted for a little over two hundred years, Pagan must have been one of the most magnificent cities in the world. Politically its sovereigns were supreme in Burma; under them the Burmese Empire reached the zenith of its power; while the energy of its people was manifested in a wealth of religious architecture. King Anawrahta, founder of the Pagan dynasty, welcomed to his Court Buddhist monks of the empire and of surrounding countries, and fostered the development of their religion in a pure but cosmopolitan form. It was at that time that the worship of the Hindu gods was ousted by Buddhism from India, and the sanctuary afforded to it by Pagan was perhaps of even greater importance than the city's political and architectural greatness. Yet in Pagan the art of the Burmese people achieved its highest triumph. In an article of very great interest on the following page, Mr. Quaritch Wales describes some of the temples of Pagan, and we illustrate here some of those which he describes. To-day there is no real city on the ancient site; the pagodas, in varying degrees of preservation, are all that remains, interspersed with a few poor villages of mat

OF PAGAN, THE ANCIENT CAPITAL OF BURMA.

ON PAGE 348.)



WITH A TERRACED PYRAMIDAL BASE AND CROWNED BY A TAPERING PAGODA SPIRE, LIKE THE SHWE DAGON AT RANGOON: THE THIRTEENTH-CENTURY MINGALAZEDI.



HAVING LITTLE ORNAMENTATION ON ITS EXTERNAL SURFACES, BECAUSE THE TEMPLE IS INTENDED TO BE SEEN FROM AFAR: THE GAWDAWPALIN (ABOUT 1200 A.D.).



A TEMPLE WHICH SHOWS SINHALISE INFLUENCE, COMBINING THE TYPE OF INDIAN STUPA AND CEYLON DAGABA: THE SHWEABANDAN PAGODA, DATING FROM THE ELEVENTH CENTURY A.D.



THE KUBAYAUKMYI PAGODA: A SQUARE TEMPLE OF THE ELEVENTH CENTURY, OF THE SAME STYLE AS THE SHWEGUOYI AND THE THILASHIN—ALL THESE HAVING AS THEIR PROTOTYPE AN EARLY STYLE EXEMPLIFIED BY THE HINDU-BUILT TEMPLE CALLED THE NAT HLAUNG GYAUNG.



THE LAST OF ITS TYPE TO BE BUILT, AND REMARKABLE FOR ITS DECORATION WITH PIECES OF GREEN GLAZED SANDSTONE: THE THILASHIN TEMPLE (1218 A.D.), NAMED AFTER A PIOUS SOVEREIGN OF THE PAGAN DYNASTY.



THE ONLY SURVIVING HINDU TEMPLE AT PAGAN, DEDICATED TO VISHNU: THE NAT HLAUNG GYAUNG (931 A.D.).

huts. Mr. Quaritch Wales compares Pagan with the contemporary ruins of Angkor, in Cambodia. In each of these dead cities the sense of desolation is unescapable, and each of them underwent a swift transition from splendour to decay. The Burmese Empire broke up with dramatic suddenness, in 1287, before the invading hosts of Kublai Khan, and the city itself became subject to the Chinese Emperor. The native legend of its fall is told in "Mandalay," by V. C. Scott O'Connor, and the story goes that the Emperor of China sent envoys to King Narathihapate of Pagan to demand an ancient tribute, and that the King, in great rage, ordered their execution. Then Kublai Khan, unaccustomed to having his ambassadors put to death, "was exceedingly angry, and, collecting an army of at least six millions of foot, sent them down to attack Pagan." Although the King opposed this army with a force of 400,000 soldiers and numerous elephants and horses, the Emperor of China "kept reinforcing his army, and replacing those who were killed, by sending 200,000 men when he heard of the loss of 100,000 men, and 400,000 when he heard of 200,000. Hence the Burman army was at last overpowered with fatigue. . . ."



A GENERAL VIEW OF THE RUINED CITY ON THE BANKS OF THE IRRAWADDY; WITH THE GAWDAWPALIN IN THE BACKGROUND: A PHOTOGRAPH TAKEN FROM THE SUMMIT OF THE THATBYINNYU TEMPLE.

PAGĀN is one of the most remarkable religious cities in the world. For more than two centuries the population devoted itself to the passion of covering some sixteen square miles of land beside the Irrawaddy with temples whose variety and lavishness of design can surely not be equalled elsewhere. Even the famous city of Angkor, in Cambodia, which was also devoted to religion, and several of whose temples stand unequalled the world over for the magnificence of their architecture and the beauty of their sculptured ornamentation, has not the amazing series of types, showing contact with many countries, which makes Pagān a veritable museum of Far Eastern archaeology.

Before Pagān the Irrawaddy widens out as though it were a great lake, and the view of the deserted city as one approaches by steamer is most impressive. The plain is dotted with a forest of pagodas of every conceivable style, from stately white structures, such as the Ananda, restored by the efforts of devout Buddhists, to a host of less conspicuous piles and mere hummocks of brickwork. More than 5000 pagodas and temples have been traced in and around Pagān, and, as the Burmese saying goes, one can hardly move hand or foot without touching some sacred relic. The climate is dry and the district arid; paths lined by cactus wind among the ruins, and one treads upon a barren soil impregnated with the brickdust of decayed shrines. There are two or three small villages of mat huts in the neighbourhood, inhabited by the descendants of pagoda slaves. It must not, however, be supposed that these poor huts represent much change, except in numbers, from the habitations of the once populous city, for even in the time of Pagān's greatness the people, who meditated on the transitoriness of human existence, had neither the time nor the desire to construct durable secular edifices.

For more than a thousand years (third to thirteenth century A.D.) Pagān was a capital city, but it was only during the last two-and-a-quarter centuries of that period that it was the head of a united Burma, a position brought about by the conquests of the great King Anawratha (1044-1077 A.D.). Up to his time, the religion of Pagān, was a corrupt form of Northern Buddhism, and the early monuments show North Indian and Chinese influence. Anawratha sacked Thatōn, a great centre of Southern Buddhism in Pegu, and, as a result, the latter form of the religion displaced Northern Buddhism throughout Burma. The Pāli scriptures were also brought to Pagān, and the captive king of Thatōn was obliged to build temples similar to those that had existed in his city. Thus were introduced the Sinhalese and South Indian styles of architecture, which culminated in the distinctively Burmese masterpieces such as the Ananda and the Thatbyinnyu. To what extent these were the work of Hindu craftsmen from India, and how much they owe to the Burmese building genius, is difficult to define. At the present time one purely Hindu temple survives which must have been the work of Indians. On the other hand, the true arch is found, a mode of construction of which the Hindus were ignorant. The example of Anawratha was ably followed by Kyanzittha (1084-1112). Other kings carried on the building tradition until Narathihapate (1254-1287), in terror at the advance of Kublai Khan, pulled down several thousand temples in order to build fortifications, but finally abandoned the city and fled without attempting a defence. Apparently the Mongols, if they ever reached Pagān, did not trouble to destroy the monuments; but the ancient city lay deserted for six centuries, and never since have the Burmese achieved greatness in architecture.

With few exceptions, the temples are built of brick with ornamentation worked in a durable form of stucco, but these fatally easy materials did not undermine the craftsmen's vitality during the Pagān period. The accompanying photographs illustrate the finest temples and the main types that may be distinguished amongst the wealth of buildings that still remain in good preservation at Pagān. The earliest type is the small bulbous *stupa* of

Anawratha soon after his accession, to expiate the crime of killing his half-brother in battle.

After the conquest of Thatōn, we get the introduction of Sinhalese influence in pagodas of the latter half of the eleventh century. Examples are: (1) the Pebingyaung Pagoda, with a bell-shaped dome surmounted by a box-like *dhātu-garbha* (relic chamber), which is crowned by a *sikhara* spire; (2) the Petleik Paya, consisting of twin pagodas whose bases are ornamented with terra-cotta reliefs illustrating Jātaka stories; (3) the Shwesandaw, said to have contained some hairs of the Buddha. It combines the type of Indian *stupa* and Ceylon *dagoba*, resting on a terraced pyramidal base, with angle-towers and central stairways on each side which recall the terraced prangs of Cambodia and the still older Borobudur of Java; (4) the Seinnyet Nyima Pagoda, which shows the influence of China, Tibet, and Ceylon. On the second terrace there is a flower-vase at each corner guarded by a Chinese

lion. The bell-shaped dome of Ceylon type is ornamented by a row of giants disgorging chaplets of pearls, while at each of the cardinal points a small exquisite image of the Buddha is enshrined in a highly ornamental niche; (5) the Pawdawmu, a remarkable shrine combining the architectural influences of Northern and Southern Buddhism.

This brings us to the great square temples which mostly date from the latter half of the eleventh century and the twelfth century, their history being recorded in inscriptions. They show South Indian influence and represent the acme of Burmese temple architecture. In each of these temples one of the lower terraces is independently developed to a great height, giving the main part of the temple a cubical appearance, and in the solid mass of brickwork chapels and galleries are opened. The Ananda is both the earliest (1091 A.D.) and finest of this type. It has the shape of a Greek cross, since four great porches project, one from each side of the main mass. In each porch is a great image of the Buddha in Indian style, cunningly illuminated by concealed apertures. On the inside walls are stone sculptures of exquisite workmanship, representing scenes from the Jātakas, and there is a statue of the founder, King Kyanzittha. The noble form of this magnificent shrine, glittering white in the sunshine, is the most impressive sight in the ruined city, and for this alone a visit to Pagān is worth while.

Thatbyinnyu is the next largest of this type, but it has not the symmetrical beauty of the Ananda because it has only one projecting porch. But what it loses through lack of symmetry is amply compensated by the sense of aspiration and majesty afforded by the numerous soaring lines: the pointed archways, the flame pediments of doorways and windows, and the series of *stupas*. The building consists of five storeys, of which the two lower ones were monks' residences, the third contained images, the fourth was a library, and the fifth supports the spire which contained relics. The Gawdawpalin, or Buddha's Throne, is similar to the Thatbyinnyu, but the basement is much smaller and more compact in proportion to the height, the flights of stairs are steeper and narrower, and the spire more elongated. Like the other large temples of this type, the Gawdawpalin was intended to be seen from afar, and hence it is that the external surfaces are treated in a broad manner with little ornamentation, except that of the flame pediments, which are, perhaps, finer in this than in any other temple.

Of the smaller temples of the same style, notable examples are the beautiful Shwegugyi, the Kubyaukkyi, and the Tilominlo. The latter, which dates from 1218, was the last of this type to be built, and is remarkable for its decoration with pieces of green glazed sandstone. The prototype of all these square temples is exemplified by the Nat Hlaung Gyaung, built, according to tradition, in 931 A.D. It is the only surviving Hindu temple at Pagān, and is undoubtedly closely related to the *rathas* on the seashore at Mamallapuram, in Southern India. The presence of figures in niches outside the temple

representing the ten avatars of Vishnu indicates that it was dedicated to that god.

Temples of lighter construction, more suitable for holding religious ceremonies, also exist at Pagān. An example is the Upali Thein, or Ordination Hall, built in the thirteenth and repaired in the seventeenth century. It represents a late type in which the architects have been able to dispense with the central mass of the temple and so produce a spacious hall able to support the weight of a small pagoda and double row of battlements, a result made possible by the finely built arches. The Nanpaya Temple, which is exceptional as being built of stone, is an earlier type, but the flame pediments are already highly developed. According to tradition it was the palace of the captive king of Thatōn when he was engaged in building the neighbouring Manuha Temple. The Bidagat Taik is a remarkable building. It was built in 1058 by Anawratha to house the Pāli scriptures brought from Thatōn. The angle-points of the five-fold roof suggest the wooden architecture of the Palace at Mandalay.

Two late buildings of the thirteenth century are of interest. Firstly, the Mahābodhi Temple (circa 1231-1254), which, although an inferior piece of work, is interesting because it is the only temple of its kind in Burma, and with its tall straight-sided *sikhara* is a copy of the famous shrine at Bodh Gaya. Secondly, the Mingalazedi, which was built a few decades before the Mongol invasion, is interesting because, although in many respects it is similar to the Shwesandaw, its terraced pyramidal base is crowned by a tapering pagoda spire of the kind characteristic of later Burmese architecture (e.g., the Shwe Dagon at Rangoon). It marked the exhaustion of the realm, and at the time of its completion the prophecy was current: "The pagoda is finished and the great country ruined!"

There are several cave temples at Pagān, the most famous being the Kyaukku Ōnhmin. It is built in storeys against the precipitous side of a ravine and is probably a relic of North Indian Buddhism. But the buildings as now existing date from the eleventh to thirteenth centuries. It was the centre of literary endeavour during the time of Pagān's greatness, and long after the conquest it remained the refuge of fugitive priests. Of the circuit wall of Pagān, built in the ninth century, nothing remains but the Sarabha Gateway, guarded by two Nats in niches which are still much revered by the people.

In conclusion it may be mentioned that Pagān is easily reached by means of the steamers of the Irrawaddy Flotilla Company, and permission may be had to stay in the Government Circuit Bungalow, although few visitors to Burma take advantage of this opportunity of seeing this wonderful city of temples. Those who are so fortunate as to be able to spend a few days wandering amongst the ancient fanes will surely agree that the pride of the Burmese is justifiable when they say: "There is nothing in India to compare with the classical beauty of some of the smaller temples, or the stupendous architectural majesty of the Ananda, or the Thatbyinnyu."



ONE OF THE TWO GUARDIAN NATS OF THE SARABHA GATEWAY, WHICH WAS PART OF THE CIRCUIT WALL OF PAGĀN, BUILT IN THE NINTH CENTURY.



THE SHINBINTHALYAUNG IMAGE: A COLOSSAL RECLINING FIGURE OF THE BUDDHA (ELEVENTH CENTURY A.D.), SITUATED IN THE PRECINCTS OF THE SHWESANDAW PAGODA.

WAR IN SHANGHAI: FLIGHT TO THE SETTLEMENT; AND CHAPEI ON FIRE.



SEEKING THE SANCTUARY OF THE INTERNATIONAL SETTLEMENT AT SHANGHAI: REFUGEES, FLEEING FROM THE CHAPEI FIGHTING ZONE, CROWDED OUTSIDE A GUARDED BOUNDARY GATE AWAITING ADMISSION.



CHAPEI ABLAZE: "THE CHINESE CITY OF CHAPEI APPEARED TO BE ONE HUGE BONFIRE, WITH FLAMES LEAPING A HUNDRED FEET INTO THE AIR, AMID A ROAR AUDIBLE AT A GREAT DISTANCE."

It need hardly be said that the relationship of the International Settlement at Shanghai to the area contested by Japanese and Chinese forces came into great prominence in the very early stages of the conflict, and it has remained a matter of world-wide importance ever since. For one thing, there were various protests against the Japanese using the Settlement as a base for their operations; for another, the Settlement has received a certain number of stray shells, bombs, and bullets; for another, the area has had to shelter many refugees, who sought safety in it as a result of the fighting in Chapei, that Chinese suburb which is a section of Greater Shanghai and is to the north of the Settlement. As

to our photograph of Chapei on fire, our readers will recall that in our last issue we showed a fire in a Chapei street, which involved a block of buildings some three hundred yards long, and including the Odeon Theatre, the biggest Chinese cinema. They will remember, further, that we then quoted a Reuter message which stated: "The Chinese city of Chapei appeared to be one big bonfire, with flames leaping a hundred feet into the air, amid a roar audible at a great distance. Shanghai was brilliantly lit by this ghastly illumination . . . Viewed from points of vantage in the International Settlement, Chapei seems to have become an inferno." The blaze continued for several days.

PLACES INVOLVED IN THE SHANGHAI FIGHTING: OBJECTIVES OF JAPANESE ATTACK IN CHINA.



INSIDE ONE OF THE WOOSUNG FORTS, NEAR SHANGHAI, WHICH HAVE BEEN BOMBED BY JAPANESE AEROPLANES DURING THE FIGHTING: A PARTY OF CHINESE SOLDIERS AT DRILL.



AT A SCENE OF RECENT HEAVY FIGHTING BETWEEN THE JAPANESE AND CHINESE: THE RACECOURSE AT KIANGWAN (FIVE MILES NORTH OF SHANGHAI), SHOWING THE GRAND STAND WITH ITS ROOF-GARDEN.



THE CUSTOM HOUSE AT WOOSUNG, NEAR THE CONFLUENCE OF THE WHANGPU RIVER WITH THE YANGTZE: A DISTRICT WHICH HAS BEEN SUBJECTED TO JAPANESE BOMBARDMENT.



WHERE TWO CHINESE AERODROMES HAVE RECENTLY BEEN BOMBED BY JAPANESE AEROPLANES: HANGCHOW, A TOWN ABOUT 100 MILES SOUTH-WEST OF SHANGHAI—A VIEW ACROSS THE WEST LAKE.



CLOUDS OF SMOKE FROM BUILDINGS IN A CHINESE QUARTER OF SHANGHAI SET ON FIRE BY BOMBS FROM JAPANESE AEROPLANES: A SCENE TYPICAL OF EVENTS IN THE CHAPEI DISTRICT.



NEAR THE SCENE OF A RECENT JAPANESE AIR RAID, IN WHICH FIVE CHINESE AEROPLANES WERE DESTROYED IN THE AERODROMES ATTACKED: THE WEST LAKE AT HANGCHOW.

After their first attack on the Chapei district of Shanghai, during which the North Station and other buildings were wrecked and set on fire by air bombs, the Japanese extended their operations, from time to time, to various other localities. Thus on February 3 they began to bomb the Woosung Forts, at the mouth of the Whangpu River, where it runs into the Yangtze about ten miles north of Shanghai. A direct hit was made on a Chinese gun, and the garrison of 1000 were said to have retreated. On the 6th it was reported that the Japanese had occupied the forts, and later they attacked the adjacent village of



THE MAIN OBJECTIVE OF JAPANESE BOMBS DURING THE FIRST ATTACK ON CHAPEI: RUINS OF THE NORTH RAILWAY STATION, SHANGHAI—A PHOTOGRAPH TAKEN DURING THE FIGHTING ON JANUARY 29.

Woosung. More recently, the village of Kiangwan, about midway between Woosung and Shanghai, has been the centre of heavy fighting. An interesting detail was given by the "Times" Shanghai correspondent on February 10. "The one bright spot in to-day's doings," he wrote, "is the arrival in the Settlement of about 900 Mongolian race ponies from the racecourse at Kiangwan, where they had been marooned since hostilities began." On February 26 Japanese aeroplanes operated as far away as Hangchow, about 100 miles south-west of Shanghai, and bombed two Chinese aerodromes there, destroying five machines.

SCENES OF STREET-FIGHTING AT SHANGHAI: SNIPERS; MACHINE-GUNNERS; AND REFUGEES.



CHINESE 'CIVILIANS'—SOME OF THEM DESCRIBED AS SNIPERS—ROUNDED UP BY JAPANESE NAVAL MEN WITH FIXED BAYONETS: A BATCH OF PRISONERS BEING REMOVED IN A MOTOR-TRUCK.



A SNIPER WITHOUT UNIFORM IN FEAR OF SUMMARY EXECUTION: A CAPTURED CHINESE COOLIE AT SHANGHAI CALMLY ANTICIPATING DEATH AT THE HANDS OF A JAPANESE MARINE.



SOME OF THE 250,000 PEOPLE WHO SOUGHT SANCTUARY IN THE FOREIGN SETTLEMENT: CHINESE REFUGEES ON CROWDED RIVER CRAFT IN SOOCHOW CREEK AND ON A BRIDGE LEADING TO THE SETTLEMENT (TO THE RIGHT).



FIGHTING ON THE HOUSE-TOPS AT SHANGHAI: JAPANESE NAVAL MARKSMEN ON THE DAMAGED ROOF OF A CHINESE PRIMARY SCHOOL, SNIPING AT CHINESE SOLDIERS, AND DIRECTED BY OFFICERS WITH FIELD-GLASSES.



CHINESE SOLDIERS WORKING A LIGHT MACHINE-GUN FROM A WELL-CONSTRUCTED BOMB-SHELTER MADE OF DÉBRIS OF WRECKED HOUSES IN CHAPEI: A TYPICAL EXAMPLE OF THE OPPOSITION THAT FACED THE JAPANESE.



A SEARCH FOR CHINESE SNIPERS IN THE STREETS OF SHANGHAI: JAPANESE NAVAL MEN ON PATROL, ONE OF THEM CARRYING A LONG POLE AND PROBING TREES AND OTHER LIKELY HIDING-PLACES.

These photographs illustrate the grim conditions of street-fighting in those quarters of Shanghai where clashes occurred between the Chinese and Japanese, particularly the stern measures taken by the Japanese in summarily executing certain ununiformed civilians caught sniping, and the plight of the civilian population. Writing from Shanghai soon after the trouble began, a "Times" correspondent said: "Enormous numbers of Chinese have been vacating Chapei and taking refuge in the Settlement, driven out by the destruction of their homes by fire and also by the rough treatment of the Japanese volunteer police in the area occupied by the Japanese.

Sniping in Chapei is reported to be continuous, much of it being attributed to Communists." Further details were given later. "Augmenting the crowds in the streets (we read) are the unhappy refugees from Chapei and Hongkew, who stream across the bridges of the Soochow creek into the Settlement. With their baggage, furniture, goods, women and children piled on rickshaws, carts, wheelbarrows, motors and lorries, they make a melancholy picture of the dislocated human organisation. Perhaps a quarter of a million people have sought sanctuary in the International Settlement."

THE HEART OF THE CONFLICT IN SHANGHAI: JAPANESE ARTILLERY IN ACTION IN THE CHAPEL DISTRICT.



JAPANESE FIELD-GUNS IN ACTION AGAINST THE CHINESE, WITH THE JAPANESE FLAG FLYING FROM A POST (IN THE LEFT BACKGROUND): A TYPICAL INCIDENT IN STRICKEN CHAPEL.

Directly hostilities began at Shanghai between the Japanese and Chinese, the district of Chapel, lying north of the International Settlement and beyond the Soochow Creek, became the heart of the conflict in the urban area (as distinct from the operations near Kiangwan further north), and it has suffered heavily from the effects of street fighting, artillery bombardment, air raids, and consequent fires. Evidence of the havoc wrought in Chapel has appeared from illustrations published by us in previous numbers. As recently as February 29, it was reported that a Japanese naval contingent had taken the offensive that day in northern Chapel, and, with strong artillery support, had advanced to new positions. The above photograph, of course, relates to an earlier phase of the fighting. It was taken on February 5, and we may accordingly recall the events described in a message from Shanghai on that date. From midnight

on the 4th, the Japanese used all their resources against Chapel, and there was heavy firing from artillery and machine-guns throughout the night and morning. The burning areas in the district increased, and volumes of smoke blew south over the Settlement. After daybreak the Japanese also used aeroplanes for bomb-dropping. At first they made considerable progress, and the Chinese were reported to be withdrawing from Chapel. Late in the afternoon, however, the Chinese attacked, and the Japanese, unable to withstand the volume of fire directed from crowded tenements in front, fell back to their original line. Chinese aeroplanes were in the air for the first time, and claimed to have brought down one Japanese bomber. It was on February 5, it may be added, that Sir Howard Kelly's flag-ship, H.M.S. "Kent," arrived at Shanghai.

JAPAN AND CHINA IN CONFLICT: BATTLE SCENES OF TO-DAY.

PHOTOGRAPHS FROM THE MOVIE-TONE SOUND-FILM BY COURTESY OF THE BRITISH MOVIE-TONE NEWS, LTD.



THE SINO-JAPANESE FIGHTING: "STORMY EPISODES" OF THE WARFARE IN THE FAR EAST.

Japan and China, in bitter conflict about Shanghai and in Manchuria, were not long in bringing back to a world that was hoping for disarmament grim memories of the grave days of the Great War to end War. Certain of the delegates to Geneva may well have deemed their hands strengthened by the fact that two Powers were fighting; for surely the event should warn the Nations of the perils

the future must hold if the belligerent mentality survives: otherwise, the situation could not but embarrass. Such pictures as these emphasise the comparison already made, and underline the words of a "Times" correspondent who, writing of gun-fire and aerial bombing in Chapel, said that it kept all Shanghai awake—"sounding almost like a stormy episode in the Great War."

THE "GOLD RUSH" IN GREAT BRITAIN: TRINKETS AND COINS SOLD FOR MELTING DOWN.



SORTING GOLD TRINKETS AND HEIRLOOMS FROM COIN: A SCENE AT A BULLION REFINER'S, WHERE GOLD IS WORTH NEARLY £6 PER OUNCE.



DESTINED FOR THE MELTING-POT: GOLD OBJECTS OF EVERY DESCRIPTION PILED TOGETHER ON A TABLE; AND A SOLID GOLD WASH-BASIN AND EWER WORTH THOUSANDS OF POUNDS.



THE MELTING DOWN OF GOLD ARTICLES FOR EXPORT ABROAD: THE METAL FROM A GOLD CIGARETTE-CASE BEING POURED INTO A MOULD.



SENTIMENTAL VALUE OUTWEIGHED BY THE NEW HIGH PRICES THAT GOLD WILL FETCH: JEWELLERY, ONCE TREASURED, BEING DROPPED BY HANDFULS INTO THE CRUCIBLE.



A GOLD-BUYING TOUR OF THE COUNTRYSIDE BY A FIRM OF LONDON JEWELLERS: SURREY VILLAGERS BRINGING OUT THEIR TREASURES.

The readiness of the British public to take advantage of the present high price of gold has resulted in an unprecedented rush to sell gold jewellery and coin. Bullion-brokers and assayers are finding it difficult to keep pace with the extraordinary volume of business. On February 29 the value of fine gold stood at 118s. 5d. per ounce—a rate which made the sale of old jewellery and trinkets exceedingly attractive; and the general feeling that a lucrative deal was at the same time a patriotic action outweighed the sentimental value attaching to many an ancient heirloom. It is pointed out that no forecast can be made of the quantity of gold articles likely to be offered for sale, since the amount of such articles in the country, though it must represent many millions of pounds sterling, cannot be given even an approximate estimate. A typical method employed by bullion-merchants in dealing with gold objects offered for sale is to put each seller's hoard, large or small, into a separate crucible, melt it down, pour the



WHAT THE BULLION DEALER MAKES OF OLD FAMILY WATCHES: BARS OF GOLD, EACH WORTH £150, THAT WERE ONCE SCOTTISH JEWELLERY.

liquid into a mould, and test the value of the resultant ingot with acids. Coins may not legally be melted down in this country; but they are shipped abroad, and used, perhaps, to purchase sterling.

PEOPLE IN THE PUBLIC EYE:
NOTABLE OCCASIONS OF THE WEEK.



ON ONE OF HIS WALKING TOURS OF HIS DIOCESE:
THE LATE BISHOP OF WINCHESTER.

The Bishop of Winchester (the Rt. Rev. F. T. Woods) died on February 27, aged fifty-eight. Vicar of Bradford 1913-16, he was nominated to the see of Peterborough in 1916. He was translated to Winchester in 1923, a diocese later reduced by the creation of those of Portsmouth and Guildford.



M. MAURICE RAVEL IN LONDON: THE COMPOSER (RIGHT)
WITH A FRIEND.

M. Maurice Ravel, conducting his new piano concerto, was the guest of honour at the concert of the Royal Philharmonic Society given at Queen's Hall on February 25. This concerto will be found discussed by our music critic on page 370. With the composer in our photograph is seen Mr. Charles Alvar Harding.



ANCIENT COLUMNS FOUND IN THE WALL OF A HOUSE
UNDERGOING DEMOLITION IN ROME.

The recent excavations and demolitions in Rome have brought to light a number of buildings and objects of the greatest interest—part of the great frieze of the Ulpian Basilica, and the remains of dwelling-houses of the time of Augustus. Our photograph shows Roman columns that had been hidden by the plaster of an old house.



SIR JOHN RUTHERFORD.

Died February 26; aged seventy-seven. Well-known owner of racehorses, including Solario, winner of the St. Leger, 1925, and of the Ascot Cup, 1926; and of his very promising son, Orpen.



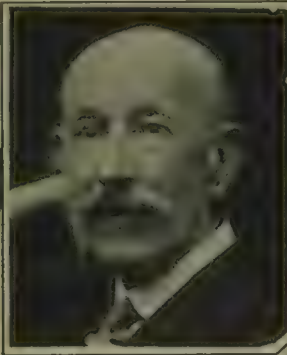
DR. CLARIDGE DRUCE.

Curator of the Fielding Herbarium since 1895. Died February 29; aged eighty-one. Elected F.R.S. as a botanist. Carried on a well-known chemist's shop in the "High," Oxford.



SIR GIFFORD FOX.

Successful candidate (Unionist) in the Henley by-election, with a majority of 9424. Speaking after the result, said: "We believe in their (the Government's) scientific Tariff policy."



SIR F. W. ANDREWES.

Died February 24; aged seventy-two. A pioneer in pathology. Succeeded Dr. Kanthack as lecturer in the medical school at "Bart's." Fellow Royal Society 1915.



A STRETCH OF THE LOWER DANUBE FROZEN OVER: THE CROWD PASSING OVER ON THE ICE
BETWEEN RUSTCHUK AND GIURGIU.

Evidence of the intense cold in south-eastern Europe is given by this remarkable photograph of the Danube frozen on a stretch as far down as that lying between Rustchuk, in Bulgaria, and Giurgiu, in Rumania. It is stated that patrols drawn from both towns police the track over the ice, on the watch for any unexpected cracks.



HERR HITLER NATURALISED AS A GERMAN BEFORE STANDING FOR THE
PRESIDENCY: THE NAZI LEADER LEAVING THE TOWN HALL, BERLIN.

Herr Hitler, the Austrian-born leader of the German "Nazis," obtained Brunswick citizenship on February 25, and is, therefore, now a naturalised German and able to stand as a candidate in the Presidential election on March 13. The Government of the Free State of Brunswick made him an official of the Brunswick Legation in Berlin.



THE LION FROM THE OLD MENIN GATE BROUGHT TO LIGHT AT YPRES: THE HISTORIC
STATUE; APPARENTLY INTACT.

The old Menin Gate was destroyed, with much else that was historic, in the bombardment of Ypres. After the war a magnificent new gate—several times illustrated by us—was built, and a new lion was set up in place of the historic old lion which stood on the old gate, and was taken as lost. Now, however, the old lion has come to light under a heap of debris near the Cloth Hall ruins, and is apparently intact.



THE PRINCE OF WALES AT THE INAUGURAL DINNER OF THE COMPANY OF NEWS-
PAPER MAKERS; WITH SIR MAURICE JENKS AND MR. R. D. BLUMENFELD.

The Prince of Wales was a guest of the Company of Newspaper Makers when it held its inaugural dinner at the Mansion House on February 26. The Master, Mr. R. D. Blumenfeld, presided, and the 300 persons who attended included many representatives of the leading newspapers of the country and of the printing and allied trades. The Lord Mayor (who lent the Mansion House for the occasion) was among the guests, with the Sheriffs.

ART MATTERS OF THE MOMENT: A PAGE FOR THE CONNOISSEUR.



A FAMOUS DÜRER TO BE SOLD: THE "FESTIVAL OF THE ROSARY" ("ROSENKRANZFEST") BELONGING TO THE ABBEY OF STRAHOV, PRAGUE.

Owing to the economic depression, the authorities of the Abbey of Strahov are offering to sell that famous treasure of their picture-gallery, "The Festival of the Rosary," which Dürer painted in 1506 for the German merchants of Venice, including in it portraits of himself, Pope Julius II., the Emperor Maximilian, one of his German friends in Venice, and several Venetians. It is valued at from thirty to forty million crowns, and it is understood that there has been a million-dollar bid from America; and that France and Germany are also in the field.



ONE OF THE TWO GREATEST PRIMITIVES OF FRANCE: "THE TRIUMPH OF THE VIRGIN"; A WORK TOO FRAGILE TO BE SENT TO THE FRENCH ART EXHIBITION.

This extremely interesting work, which Mr. Ormsby-Gore described recently as "one of the two greatest Primitives of France," is in the Hospice of Villeneuve-lès-Avignon; the other is the "Pieta" in the Louvre. It is painted on canvas, mounted on wood, and it is so fragile that it was deemed wise not to take the risk of transporting it to London. The following description has been sent by our correspondent: "The Triumph (or Coronation) of the Virgin.—In the upper centre is the Holy Mother—in a royal mantle, ornamented with gold; against a gold background—being crowned by the Father and the Son. The lower margin is occupied to the right by a view of Jerusalem, with (immediately underneath) Elect Souls in Paradise; and to the left is a vision of Rome, with (below it) those unhappy souls who have been cast out of the Church descending to (or in) Purgatory. Between these views and the Triumph of the Virgin are the mountains and skies leading to, or between, Her and Heaven. At the left are the portraits of the donors, or of those who commissioned the picture in the fifteenth century, with angels hovering above them; whilst to the right are followers of the Church (each one a portrait)." It is by Charonton and its date is 1453.



SOLD FOR £2047-10S.: A HENRY VIII. LOCKET CONTAINING TWO HOLBEIN MINIATURES OF THOMAS CROMWELL, EARL OF ESSEX—NATURAL SIZE.

The upper photograph shows the locket open, displaying one of the portraits and the engraved top of one of the covers. Below this are shown the other cover and the second portrait. The description of the "lot," which contains the following: "... Locket, of Holbein design, of circular shape, opening on both sides. ... Contains two miniature portraits of Thomas Cromwell, Earl of Essex (1485?—1540), the celebrated statesman of the time of Henry VIII., by Hans Holbein, both in brilliant condition, painted on ultramarine backgrounds; in one he is shown, three-quarter face turned to his right, wearing black cloak and cap, and Chain of the Order of the Garter with the George. ... The miniature of Cromwell wearing the Chain of the Garter was evidently painted between 1537 and 1540, as he became a Knight of the Garter in 1537 and was executed in 1540; the other miniature may have been painted a few years earlier."

was sold at Christie's on February 24, contains the following: "... Locket, of Holbein design, of circular shape, opening on both sides. ... Contains two miniature portraits of Thomas Cromwell, Earl of Essex (1485?—1540), the celebrated statesman of the time of Henry VIII., by Hans Holbein, both in brilliant condition, painted on ultramarine backgrounds; in one he is shown, three-quarter face turned to his right, wearing black cloak and cap, and Chain of the Order of the Garter with the George. ... The miniature of Cromwell wearing the Chain of the Garter was evidently painted between 1537 and 1540, as he became a Knight of the Garter in 1537 and was executed in 1540; the other miniature may have been painted a few years earlier."

THE TREASURE OF THE WEEK AT THE VICTORIA AND ALBERT MUSEUM: A PORCELAIN GROUP BY FALCONET AFTER BOUCHER.

The composition is by the painter François Boucher; its translation into the round for reproduction in porcelain is the work of Etienne Maurice Falconet. The group was made about 1765 in the Royal Porcelain Factory at Sevres, and illustrates in several ways the activities of that famous institution. It is of soft paste porcelain in the unglazed (biscuit) condition, which the factory was the first to adopt for groups and figures; in style it is typical of the new sentiment which, from an early stage, pervaded the Sevres productions. It is 13 inches high.

(Crown Copyright Reserved.)



"PORTRAIT OF A LADY"—NOW CONFIDENTLY ASCRIBED TO GIORGIONE: A WORK THAT MAY REPRESENT THE ARTIST'S MISTRESS.

This small picture, which is in Lord Melchett's collection, has at various times been attributed to Titian and others, but can now be ascribed with reasonable confidence to the hand of Giorgione. So marked is the painter's obvious liking for his model—from her dress it is evident that she is not a great lady of the period—that it is not fantastic to suggest that she is no other than Giorgione's mistress, to whom it is well known he was deeply attached. The picture was painted between 1505 and 1510.

THE WORLD OF SCIENCE.

THE CUCKOO-RAY.

By W. P. PYCRAFT, F.Z.S., Author of "Camouflage in Nature," "The Courtship of Animals," "Random Gleanings from Nature's Fields," etc.

I HAVE lately had an opportunity of examining a specimen of the rare "cuckoo-ray" (*Raia circularis*), a species which apparently is but seldom taken in our waters. Rays, or "skates," of one or other of the species taken by our deep-sea fishermen are commonly to be seen in fishmongers' shops, yet but rarely, I suspect, do they excite any comment. People are so used to thinking of them in terms of "edibility," and have no curiosity as to the "how"

been run over by a steam-roller. When one comes to compare the skate carefully with, say, the dog-fish, important differences are brought to light. It will be noticed that the breast, or pectoral, fins, dominate the whole body, running forwards into the snout and backwards to the base of the tail to form great triangles. From the upper surface neither mouth nor gill-slits can be seen. A pair of evil-looking eyes, with a pair of great holes behind them—the "spiracles," or apertures, through which the water passed over the gills is expelled—being the only indications of the head. The mouth and the gill-slits will be found on the under-surface.

But there are some interesting variants on this general ground-plan, some of which are, as yet, quite inexplicable. Why, for instance, do the teeth differ, and this in a surprising way, in the male and female in species of the genus *Raia*? In our "thornback skate," for example, they are sharp-pointed in the male, but flattened plates in the female! Is the mode of feeding and choice of food different in the two sexes? No one seems to know. In the eagle ray, again, the teeth form a series of closely packed bars, bounded at each end by three rows of polygonal plates forming a mosaic. There are yet other singularities in this matter of teeth which I cannot now touch upon.

The monk-fish has a skin covered with minute denticles, such as I have already referred to in the dog-fish. But in the skates the skin is often studded, as in our thornback skate, with great spines, with points as sharp as needles. And in the "sting-rays" one or more of the spines on the tail may be elongated and barbed, to serve as a poison dagger inflicting serious wounds. One of the sting-rays (*Trygon pastanaca*) occurs off the British coast. Some of these rays, known as "devil-fish," attain to an enormous size, measuring as much as fifteen feet across the "wings" and weighing as much as 1000 lb. One group, forming the family Torpedinæ, or "electric rays," has developed an electric organ between the head and the pectoral fin, capable of giving an electric shock severe enough, in the torpedo ray of the Mediterranean (*Torpedo marmorata*), to disable a man! This and the smaller species (*Torpedo hebetans*) are occasionally taken off the English coast.

Many people must have watched the weird spectacle of a swimming skate in the tanks of the Aquarium at the London "Zoo." When seen from below these fish look rather like ghosts waving a great white sheet! And these wings form an important part in the capture of food; for the great body is poised over the intended victim, and then, with a sudden swoop, it descends and, forcing its captive down on the sea-floor with a series of shuffling movements, forces it forwards into the jaws.

The British members of the skate tribe number twelve species, which are divided into two groups—long- and short-snouted. The first contains five, and the second seven, species. The first five have a smooth skin or only patches of spines, while the remainder have a conspicuously spiny skin—at least, on the upper surface. Of this number I have space only for particular mention of one species—the cuckoo-ray, distinguished by the curious black circular patches.

In examining the specimen to which I have already referred, my attention was drawn to a most astonishing peculiarity of its eyes. When I first examined the iris, or coloured area of the eye, it was quite masked out by a semi-circular fold of skin with a delicately scalloped edge, as may be seen in Fig. 2. This lay immediately under the cornea, the outer transparent surface of the eyeball. But, by a gentle coaxing movement of the fingers towards the top of the head, I found that this cover could be drawn upward and over the eye, so as to expose the whole of the iris, as in Fig. 3. Hence this fish may be said to wear "blinkers"! I may find, on a further examination of the subject, that this peculiarity is to be found in all the skates; but at the moment I can recall no similar case. It is certainly a very singular form of eyelid, since its function seems to be solely that of shutting out light from the eye, and not also for its protection.

Naturally, one asks, what is the function of this "sliding shutter"? Is it drawn down only during the hours of sleep?—for we know that fishes do sleep. This, at any rate, seems to be a natural explanation of the riddle, and there, for the moment, I must leave it.

Did space permit, I should have liked to say something of the oviparous and viviparous modes of reproduction of these strange fishes; and of the



1. A REMARKABLE MEMBER OF THE RAY TRIBE OF FISHES: THE CUCKOO-RAY, SEEN FROM THE UPPER SURFACE; SHOWING THE SPIRACLES, OR BREATHING HOLES (A) OPENING IMMEDIATELY BEHIND THE EYES. The ray's spiracles, we may note, are the apertures through which the water passed over its gills is expelled. The fish's gill-slits are found on the under-surface.

and the "why" of their being. Even as a "food fish" they generally receive but scant attention, being regarded as barely palatable. This is unfortunate, for, to my thinking, "skate," properly cooked, is by no means to be despised.

I am concerned now, however, not with their relative edibility, but with the many and extremely interesting features they present when regarded as "fishes." To begin with, it would hardly be supposed by the average man that these great slab-sided creatures were members of the shark tribe, of which our "dog-fish" may serve as a type. Nevertheless, such is the case. The "sharks," large and small, have a long, lithe, cylindrical body, with a pointed snout, under which lies the mouth, gill-slits at the side of the head, and obvious fins. The skin is smooth to the touch when stroked from head to tail, but if the hand be brought briskly and firmly back in the opposite direction, repentance quickly follows. For that smoothness is formed by innumerable glass-like spines, very small, and all turned with their points directed backwards. Over the skin covering the jaws, these spines are enlarged to form the teeth! But the sequel to this I dare not touch upon now.

The affinity between the skates or rays and the sharks is marked by the strange transformation the body of the former has undergone as a consequence of their very different habits. The sharks hunt their prey in mid-water. The skates lie on the sea-floor, half-buried in the sand; and this habit has gradually brought about that appearance of a shark which has



2. THE EYE OF THE CUCKOO-RAY; SHOWING ONE OF THE "BLINKERS," OR EYELIDS (WITH FRINGED EDGE) WHICH MOVE BEHIND THE CORNEA, OR TRANSPARENT SURFACE OF THE EYEBALL, INSTEAD OF IN FRONT, AS DO THE EYELIDS OF OTHER ANIMALS. It is suggested by Mr. Pycraft that the use of this fringed eyelid of the cuckoo-ray may be to close the fish's eye during sleep.



3. THE EYE OF THE CUCKOO-RAY WITH THE FRINGED EYELID DRAWN UP AND THE WHOLE OF THE IRIS EXPOSED: A PHOTOGRAPH SHOWING CLEARLY THE REMARKABLE FACT THAT THE EYELID IS BEHIND THE GLASSY CORNEA.

many peculiarities of the skeleton, which is entirely of gristle, not bone, as in the typical fishes. But these are themes I shall have to leave for another occasion.

THE KANGAROO LEAPING: THE HOP ON THE LEVEL AND FENCE-JUMPING.

REPRODUCTIONS BY COURTESY OF THE DIRECTOR OF TRADE PUBLICITY, AUSTRALIA HOUSE.



THE LEAP OF A KANGAROO ON LEVEL GROUND—FROM THE START TO THE FINISH OF A SINGLE HOP; THE TAIL NOT TOUCHING THE GROUND.



THE KANGAROO LEAPING A FENCE, AN OBSTACLE WHICH PRESENTS NO DIFFICULTIES, EVEN IF SIX OR EIGHT FEET HIGH, AND CAN BE TAKEN BY THE ANIMAL WHETHER IT IS FACING IT OR STANDING PARALLEL TO IT.

SPEAKING recently at a scientific meeting of the Zoological Society, Dr. W. D. Walker, who has travelled extensively throughout Australia, gave some most interesting information as to the habits of kangaroos as observed by him in regions which have seldom been visited by white men. Stating that the kangaroo is able to jump a fence from six feet to eight feet high not only when it faces it, but when standing parallel to it, he demonstrated the truth of his remarks by means of a cinematograph film lent by the Trade Publicity Department of "Australia House." Three extracts from that film are here given; and it should be added here that each of the strips should be "read" from the top of the page to the bottom. Among other things, Dr. Walker showed that, although the kangaroo uses its very strong tail, in conjunction with its hind-limbs, to form a tripod on which it rests, it keeps the tail high in the air when it is moving at speed and does not touch the ground with it at the end of a leap.



THE LEAP OF A KANGAROO ON LEVEL GROUND—FROM THE START TO THE FINISH OF A SINGLE HOP; THE TAIL NOT TOUCHING THE GROUND.

The World of the Theatre.

By J. T. GREIN.

THE SHAKESPEAREAN VOGUE.—A RISING STAR: JEAN COLIN.

THE success of "Julius Cæsar" at His Majesty's has surpassed all expectations. Not since the days of Tree has there been such a rush for Shakespeare, and it is rumoured that this brilliant company will be held together for further revivals. The phenomenon is all the more remarkable since it has come in a season which has been generally none too profitable. Is the cause of it the assemblance of an "all-star" cast, or is it due to the magic of the word, the dramatic force of the play? Some say both; others, more intimately connected with the theatre and its working, attribute the happy result to reaction. Lately we have had many indifferent plays, and the public has grown tired of paying West-End prices for an entertainment which compares badly with the offerings of the cinema at a mere fraction of the same expense. Be this as it may, suddenly Shakespeare has become the vogue, and as I write we are looking forward to "Romeo and Juliet," transferred from the Embassy to the centre, and a production of "Othello," with [Mr. Ernest Milton and Miss Lydia Sherwood in the leading parts, and mayhap Miss Flora Robson, that rising young actress, as Emilia.

It would be premature to prophesy whether this happy movement will last or whether it is a mere tidal wave such as are not infrequent in our theatres. We have had all sorts of weird experiences in that way; thus a period of romantic revivals after the war; a Grand Guignol fever, another for home-made thrillers; yet another for plays with bedroom scenes (still more or less surviving). They have come and gone and were of little significance in the making of theatrical history. But this latest development is more portentous than all its predecessors. It goes to prove that there is a large public for Shakespearean programmes, provided that the cast is one of uniform excellence, as under the régime of Tree, who, whatever else may be said about his productions, was never content until he gathered the best of the best under his banner. Mr. Oscar Asche, who had graduated in his company, was akin to this: it was he who had the idea of the "Julius Cæsar" performances; it was he who had the good luck to find a Mæcenas as a backer. Hence team-work of great harmony and unity, against which the only reproach can be levelled is that instead of treading new ground, it upheld the tradition, on the one hand in clarity of diction, on the other in dwelling on the time-honoured recitation. Frankly, one would prefer a more "humanised" delivery in many cases, less emphasis of the word for the sake of effect, and less interference of the crowd in the great speech of Antony, which impelled Mr. Godfrey Tearle not only to be an orator, but to be a wrestler with the vociferous forces around him. But it would be churlish to dwell on the shortcomings when the ensemble is so worthy of a master and the spirit that animates the whole company so earnestly intent to rise to the occasion.

Our concern is less with the present; it is rather with the near future, whether Mr. Asche and his henchmen are likely to perpetuate their enterprise, to hold the company and to strengthen it in order to maintain a regular Shakespeare Theatre in the centre of the realm. In this respect we have to consider the mood of the public and the possibility that some time or other there arises a certain lassitude among playgoers—a change which is not infrequent in the theatre—that would imperil the future. To guard against this, to guard also against the constant cares which obsess Miss Lilian Baylis in her valiant fight at the Old Vic and Sadler's Wells, has not the time come to ask for patronage from the public purse?—such as is vouchsafed in all countries except England—such as is given to the opera, which is of far less national importance than the cult of the Bard. In our present economic difficulties, I know it is seemingly an awkward moment to plead for such support. But what is wanted is not a great sum. If £10,000 annually were voted to Mr. Asche

(and another £5000 to Miss Baylis) there is every reason to believe that he could rely on the co-operation of his fellow-workers; he could prevail on them to accept salaries lower than their usual standard for the glory of the cause; he could assure them a certainty of engagement for a period instead of a run; and he could make His Majesty's the permanent and worthy home of Shakespeare. We would then have three theatres in London devoted to our

At moments she could vie with the lay figure that stood by her side as her *alter ego*. At moments she reminded me of the toys—artificial ones these—that bobbed around their maker. Her eyes were as stark as her limbs; her movements were angular, as if wound up by clockwork; she allowed herself to be banded about at will just like a real doll regardless of consequences. Then, all of a sudden, in the love-scene with the young monk, that artificiality ceased as by magic. The eyes became lustrous, the limbs lissom, the fixed smile on her pursed lips became a wreath of sunshine. The flame of life was infused into what, so far, had been a "robot." And when she sang, with a *filet de voix* as yet, unfinished but tuneful, we felt that in those gentle notes full of budding charm there was the promise of great development under the guidance of a great teacher. Not since the revelation of Evelyn Laye was there such a happy surprise in musical-comedy land. "At last, at last," said the old habitués, as faithful to the new enterprise at Daly's as they were to the Edwardian days at the Gaiety, "we have a novice who will be a *divette*!" And on the first night they cheered themselves hoarse with enthusiasm.

Meanwhile Miss Colin was studying her next part, San Toy—no small task with eight performances a week of "La Poupée" during rehearsal. "San Toy," too, is a satire, a character of make-believe in the dual personality of the boy and girl rolled into one; but it demands of the heroine just the opposite qualities which were paramount in "La Poupée." San Toy is a living piece of quicksilver, a human sprite here, there, and everywhere; she must laugh and frolic with all her body; she must galvanise all around her in impish animation. In the beginning Miss Colin was a little overcome with nervousness; she was a shy little boy in the ballad, "It's Nice to Be a Boy"—we did not quite believe her that it was so nice. But she soon got the better of her anxiety, and when she warbled the lovely tune of "The Moon"—the song that, now and in the past, drew the audience into a gentle nirvana of delight—she was her brave little self. She sang still with that almost plaintive, slightly husky voice of hers; but she sang from the heart, and it went home.

From that moment, fired by torrents of applause, she held her own; she was, in turns, the tom-boy and the tom-girl. She flitted across the stage like a winged Eros;

she flattered and cajoled the absurd emperor and his absurder mandarin; she teased her British lover, and she witched him so that he became as dough in her hands. Then, leaving alone all clownery, she became a clinging, fervent, obedient little Eastern maiden, seeking refuge and protection in his strong arms in delicate pathos and feminine abandon. It is in this suppleness of mood and method, this quick transition from girlish exuberant gaiety, that the charm and the art of Miss Jean Colin lie. Once free of fear, she forgets that she is on the stage. She lives and revels in her part. She works with heart and soul; she casts about her bunches of smiles in the joy of living, and her limbs—so jerky in "La Poupée"—fly hither and thither as if they were separate entities of her shapely body.

Add to this a rare and never obtrusive sense of humour, a face that, either in Nature's blondest or in a boyish wig of curly black hair, reminds us of a dainty piece of Saxony porcelain, and you can realise the charm of her *petite* personality which is taking the public by storm.



THE COSTER SIDE OF "DERBY DAY," AT THE LYRIC, HAMMERSMITH: IN A TRAFFIC BLOCK ON THE ROAD TO EPSOM; WITH THE BARMAID-HEROINE (TESSA DEANE) LEADING A CHORUS WITH HER CONCERTINA.

national classics, and no longer have to endure the accusation that foreigners love our Shakespeare better than his kinsmen.

I remember Audran, the famous composer of "La Poupée," saying when his greatest success since "La Mascotte" was the topic of theatrical London: "Yes, yes, that is all very well; they can sing it, they can act it too, but shall I ever find an artist who forgets to 'perform' in the realisation of the mechanism of *la Poupée*? As my music, so the artist must be able to create the make-believe beyond a doubt. The whole aim of the operette is to depict the coming alive of the doll as by natural process." I wonder what his opinion would have been if, thirty years later, he had seen the performance of Miss Jean Colin, who has suddenly risen from comparative obscurity to the front rank of musical comedy. I have seen "La Poupée" very often and in many countries, but never have I had such a complete illusion and delusion as in the performance of Miss Colin.



THE COACH SIDE OF "DERBY DAY": THE VIVID SCENE BEFORE THE RACE—FORTUNE-TELLING; STUDYING FORM; AND LUNCHING.

The characters seen here (left to right) are Sir Horace Waters (Frederick Austin), owner of the favourite; Lady Waters, M.P., J.P., temperance reformer (Mabel Sealby), and their party on the coach; and (below) John Bitter, the keeper of the Old Black Horse "pub" (Scott Russell), Mrs. Bones (played by Mabel Constanduros of B.B.C. fame), a gipsy (Gueda Waller), Rose, the barmaid-heroine (Tessa Deane), and Bert Bones (Leslie French), the tipster son of Mrs. Bones, who, with Bitter, "nobbles" the favourite—a very sensitive horse—by singing to it in a minor key! The libretto of "Derby Day" is by A. P. Herbert. The music is by Alfred Reynolds.

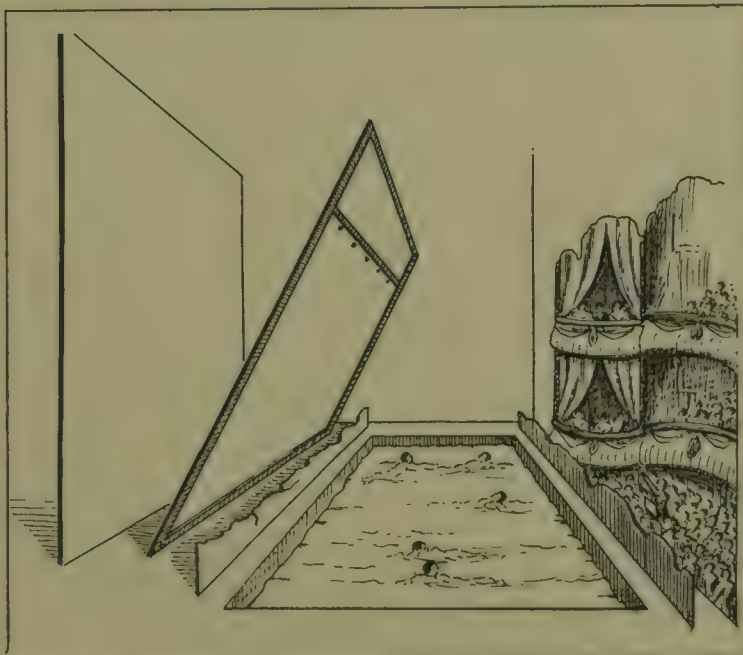
LIVING "NAIADS" IN REAL WATER: A REMARKABLE STAGE ILLUSION.



MORE REALISTIC THAN THE RHINE MAIDENS OF WAGNERIAN OPERA: A TABLEAU OF FIVE LIVING "NAIADS" DISPORTING THEMSELVES IN ACTUAL WATER, AS REPRESENTED BY MEANS OF AN INGENIOUS DEVICE IN A NEW REVUE, "NUITS DE FOLIE," AT THE FOLIES-BERGÈRE IN PARIS.

WE illustrate here a very striking stage effect recently produced in Paris, in a new revue entitled "Nuits de Folie," at the Folies-Bergère. It is in some respects rather reminiscent of the Rhine Maidens in Wagner's opera "Das Rheingold," but is far more realistic, in that the "Naiads" are seen disporting themselves in real water. In fact, it is an illusion only in so far as the spectators actually see, not the swimmers themselves, but a reflection of them; while the scene is represented vertically, instead of in a horizontal position as in actual fact. In a general account of the production, a French writer says: "The most interesting turn is undoubtedly the tableau here reproduced, the secret of which is explained in the accompanying diagram. The scene represents the depths of the sea. Suddenly the lower portion is illuminated, and a party of Naiads, who appear to be actually living under water, are seen swimming about in the most graceful fashion. As a matter of fact, the tank in which they swim has been placed horizontally on the actual stage, and

[Continued opposite



HOW THE EFFECT IS PRODUCED: A SWIMMING POOL AND REFLECTING GLASS ON THE STAGE—A DIAGRAM SHOWING THE AUDITORIUM ON THE RIGHT.

[Continued.]

is hidden from the audience by a piece of scenery. The illusion is obtained by means of a glass, without tinfoil, set up behind the tank, and inclined forward to an angle of 45 degrees, in front of a black screen. When the tank only is brilliantly lit up, the glass and the screen form a mirror and present the vision to the audience vertically." Describing the production as a whole, the writer says: "In the entrance-hall of the Folies-Bergère we see a notice that tells us that the new revue has cost more than 3½ million francs to produce. That is quite a good sum. But it is not enough just to spend money. Neither the magnificence of the costumes and décor nor the change of scenes, and not even the presence of numerous 'stars,' are enough to ensure the quality of a spectacle of this kind if the producers do not possess taste. M. Louis Lemarchand's production, however, is in quite the best of taste, and is one of the most successful we have had. Sixty different tableaux succeed one another, each rivalling the last in luxury and picturesqueness."

BOOKS OF THE DAY.

WHAT happens when an inquiring foreigner asks a London bookseller for a book about London? I should like to be there to watch results, for, if the shop were fully stocked, I can see a majestic pile of volumes ascend from counter to ceiling, even if limited to fairly recent publications. Every now and then somebody seems to discover London and write a book about it, apparently believing himself to be "the first that ever burst into that silent sea." There are, perhaps, too many of these impressionistic chroniclers and essayists who dip here and there at random into London's romantic past, often covering the same ground. I do not refer, of course, to serious works of research, where the subject is treated comprehensively. To this more solid class of topographical literature, permanently valuable for reference as well as for good reading, belongs such a book as "THE FACE OF LONDON." The Record of a Century's Changes and Development. By Harold P. Clunn. With nearly 200 Illustrations (Simpkin Marshall; 7s. 6d.).

As a Londoner of some fifty years' standing, I can say that it is quite the most attractive single-volume work on the subject for the general reader that I have come across, and, considering its ample scope and pictorial enrichment, remarkably cheap. The illustrations are not only excellent in quality, but have the rare merit of being all placed the same way up as the text and facing the passages to which they relate. This arrangement ought to be compulsory. What have I not suffered in chasing remote allusions to misplaced illustrations without cross references! The practice of setting them at right angles to the text, involving twists and turns and sidelong glances, is enough to give one a permanent squint and crick in the neck. Another admirable feature is the frequent placing of illustrations in pairs, showing the same scene at different periods. Incidentally, I notice that back numbers of *The Illustrated London News* have provided information, here and there, about London in the 'forties and 'fifties.

London of to-day, with its architectural innovations and controversies, is well represented both in text and pictures, which include such new buildings as the Bank of England, Unilever House, the Shell-Mex design, Broadcasting House, and the South Africa Offices under construction in Trafalgar Square. In the Thames bridges dispute, the author holds views that should lend elbow-power to the L.C.C.—if such a body can be said to have an elbow. "A new and noble Waterloo Bridge," he urges, "should be constructed with six lines of traffic. . . . The desire to retain Rennie's bridge is based solely on the assumption that no present-day architect is capable of designing an equally noble structure." Not only that, I think: it is mainly the reluctance to demolish a beautiful and historic work of art. Possibly a solution might be found as with another decorative obstruction to traffic—Temple Bar. Some public-spirited person might be induced to buy Waterloo Bridge, and re-erect it in a less congested area or in his private park. Curiously enough, there appear to be no American bidders!

Side-lights on bygone London naturally emerge from a book concerning one of the most famous of literary Londoners, entitled "GREEN LEAVES." New Chapters in the Life of Charles Dickens. By John Harrison Stonehouse, author of "Charles Dickens and Maria Beadnell." Revised and enlarged Edition, with 10 Illustrations (Piccadilly Fountain Press; £1 rs.). The author, who, I am glad to note, pays tribute to Mr. Chesterton as "the greatest of Dickens biographers since Forster," has here collected fresh gleanings of his own to fill gaps in the story of the novelist's early years, before he sprang into fame with "Pickwick." They are additions to those gathered from the letters to Mrs. Winter (formerly Maria Beadnell, and the original of Dora in "David Copperfield"), whereon Mr. Stonehouse based his previous book. He hopes that these new Dickensiana will "explain away some most unworthy ideas that have become current in connexion with his private life." One could hardly expect Dickens to "dramatise" his temperamental difficulties with his wife, but the ironic fact remains that, with all his power of picturing domestic scenes, he had to indicate his own in vague general terms, such as "Mrs. Dickens and I lived unhappily together for many years," leaving the rest to our imagination.

Two instances of buildings associated with Dickens being affected by the exigencies of modern traffic occur in a chapter on City of London Churches. "In 1831," we

read, "thirty bodies were removed from the Church of St. Michael, Crooked Lane, and deposited in the vaults of St. Mary Woolnoth . . . which resulted in the atmospheric conditions recorded by Dickens in 'The Uncommercial Traveller.' . . . These dead citizens only found a final resting-place when 'the builders of the South London Tube Railway were granted the right to put their Bank Station under the Church. All the bodies were removed to the City of London Cemetery at Ilford. To-day we have the unique experience of a Church above a railway station.'" Again: "In 1833, the London Bridge Committee succeeded in obtaining part of the churchyard (of St. Mary Woolnoth) . . . and the old home of Maria Beadnell, No. 2, Lombard Street, with other buildings in the same street, was pulled down to improve the approaches to the new bridge."

an author of whom her friend and literary executor, Mr. John Johnson, writes: "Miss Fairbridge was what her books are. She was the most indomitable of women, having all the magnanimity of outlook which is born in big spaces." She did not live, we are told, to expand this book as fully as she intended from its original, and still basic, point of interest—a biographical study and defence of Willem Adriaan van der Stel, the Dutch Cape Governor of 1699 to 1708, who was recalled in disgrace through an intrigue by certain Cape burghers with whose commercial interests his policy interfered.

The English reader will not, perhaps, become a violent partisan in that far-off quarrel, but will, I think, enjoy the general picture of the time and place, the story of the farms, including the Governor's own gardening and agricultural calendar, and the description of the fine old Dutch homesteads. Van der Stel's own house and estate at Vergelegen, with its vines and giant camphor trees, were eventually bought, we learn, by Sir Lionel Phillips, and "the salvation of the farm from destruction has been the work of Lady Phillips . . . a great example for all South Africa to follow." The Governor's modest home was misrepresented by his enemies, to the Council of the Dutch East India Company in Amsterdam, as a "high-flying" country seat built for ostentation. "It is curious to reflect," we read, "that if the art of the photographer had existed in 1706, the result might have been reversed—Vergelegen would have been shown as a charming but six-roomed house." The original idea of a settlement at the Cape, Miss Fairbridge records, was suggested to the Company by two officers of the Dutch ship *Haerlem*, wrecked in Table Bay in 1647, Leendert Janz and Nicolas Proot, "to whom sufficient honour as the pioneers of South Africa has never been paid."

Much curious information about an African tribe is contained in "THE LAMBAS OF NORTHERN RHODESIA" A Study of their Customs and Beliefs. By Clement M. Doke, M.A., D.Litt., sometime Missionary in Lambaland; Professor in Bantu Philology of the University of the Witwatersrand, Johannesburg. With 110 Illustrations and Map (Harrap; 36s.). The author has spent seven years in Lambaland, a territory of some 25,000 square miles, partly in North-western Rhodesia and partly in the southern part of the Katanga district in the Belgian Congo. He describes, from personal observation, the Lamba tribal system, and such matters as initiation, marriage, and burial rites, laws and punishments, slavery, religion, witchcraft, folk-lore and music. Professor Doke offers his book as a record of native life for the benefit of Government officials and all who come in contact with the people. As such it should be very valuable, and it will also appeal strongly to anthropologists.

The reader is transported into a very different atmosphere in "BLACK FRONTIERS." Pioneer Adventures with Cecil Rhodes's Mounted Police in Africa. By Sam Kemp. With twelve Illustrations (Harrap; 8s. 6d.). This is the personal story of a hard-bitten emigrant who, as a youth of eighteen (in 1886), was in the great gold rush at Johannesburg, and afterwards had many a thrilling experience. Here we see life in the rough, and humanity in the raw; perilous wanderings in the wild; narrow escapes from man and beast; and scenes of horror among Arab slave-traders. A novel glimpse into the byways of Empire-building occurs in the author's account of his acquaintance with Cecil Rhodes. "I first met him during a street brawl in Kimberley, when two of his former employees were punishing him in a dispute over wages. Not knowing Rhodes from Adam, I went to his aid because the fight looked lop-sided. We fought it out with the fellows, and were eventually victorious." Later, Rhodes said: "Stay with me, Kemp, and I'll send you home a millionaire." Somehow he lost his chance.

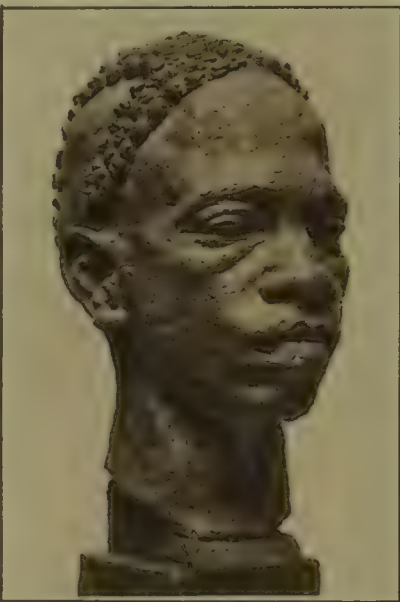
From the other end of the Continent comes an attractive travel book called "A WAYFARER IN NORTH AFRICA." Tunisia and Algeria. By Fletcher Allen. Illustrated. (Methuen; 7s. 6d.). The author writes entertainingly both of the modern inhabitants and Roman ruins. It was in Timgad, of all places, that he met a native guide who had played cricket in England. "Yes," said this worthy, "It is Favershamkent I learn Johnny McGraw and play cricket. Besides, I walk in 'Ide Park and make great show!" How little do we Londoners realise what is in the minds of our more exotic visitors! That is a phase of London life that has escaped even Mr. Clunn. C. E. B.



A SCULPTURE - ETHNOLOGIST'S STUDIES OF AFRICAN TYPES: "OTHELLO," A MODERN MOOR; BY MARGUERITE MILWARD.



AN AFRICAN CHILD-STUDY BY MARGUERITE MILWARD: "SATI," OF FRENCH GUINEA.



"MAHBI": A DANCER OF THE IVORY COAST.



"BELAH": A JEWELLER OF UPPER VOLTA.

Mrs. Milward has some interesting things to say about her African models, which she found at the French Colonial Exhibition. "Othello," the Moor, belongs to a race of Semitic Arabs which at one time conquered Northern Africa and part of Spain. They have dwindled to a small tribe living in Mauritania, North-West Africa. Their inky-black curly hair is cut into mats of different shapes. "Sati," of French Guinea, is a "chef-du-ballet," although she is only nine years old. She was found with four other little girls dancing the most weird, monotonous jig to native music and tom-toms, while an old woman clapped her hands to keep time. They ended by all standing on their heads! The little leading-lady had a head-dress of silver pyramids and a silk fringe wound in her black hair. She was so shy that she never lifted her eyes while the sculptor modelled her. "Mahbi" is a dancer of Côte d'Ivoire. His troupe consists of three tall boys and three tiny naked boys. They all wear a curious head-dress of feathers, stuck in a leather band, which goes well with their war-whoops, wild dance, and tom-tom accompaniment. "Belah," the jeweller, of Upper Volta, has his head shaved so that his curly hair grows in fantastic shapes. He wears an embroidered cap, in shape like a chef's cap.

Mr. Clunn's allusion to South Africa's new Government building in Trafalgar Square (whose projected aspect was recently illustrated in our pages) conveys me to that delectable Dominion by a travel service even quicker than the air mail—thought-transference. My visit was prompted by a book of singular charm on the early history of Cape Colony—namely, "HISTORIC FARMS OF SOUTH AFRICA." The Wool, the Wheat, and the Wine of the 17th and 18th Centuries. By Dorothea Fairbridge. With many Illustrations, including two in Colour (Oxford University Press and Humphrey Milford; 32s. 6d.). This beautifully printed and illustrated volume is a posthumous work by

"PAINTED AFRICA"—EXHIBITED IN LONDON: BRUSH IMPRESSIONS BY AN ETHNOLOGIST-PAINTER.

REPRODUCTIONS FROM PAINTINGS BY MISS HILDA MAY GORDON, F.R.G.S.



A LUMBWA WOMAN (KENYA) WEARING BRASS BREAST-PLATES AND EAR-CHAINS. Miss Hilda Gordon notes that the weight of these breast-plates is very considerable, as is that of the ear-chains of wire, beads, and copper.



MOGODO-LUTULI, A WEALTHY ZULU BEAUTY WEARING A COIFFURE NINETEEN INCHES LONG, ADORNED WITH A SNUFF-SPOON SCALP-SCRATCHER. Mogodo-Lutuli has her hair dragged back over a framework of wire and fine bamboo. The "Tong" spoon worn in the hair (looking like a miniature golf club) is for taking snuff and scratching the scalp.



A SPRIGHTLY XESIBI MAIDEN OF GRIQUALAND EAST (PONDOLAND). Until married, the Xesibi girl wears a sort of fringe which covers a part of her forehead. It is usually thrown back.



A KUKUYU OF KENYA: A "BEAU" THICKLY SMEARED WITH RED CLAY AND OIL AND WEARING COPPER AND LEAD EAR ORNAMENTS. Miss Gordon found that her Kukuyu sitter dispensed an almost overpowering effluvia from his red clay-and-oil toilet. The weight of the ear-ornaments is very great, as they are made of copper and lead; yet they rarely break the lobes of the ears.



A WGOGO OF DODOMA, TANGANYIKA: A MAN WHO, LIKE HIS FELLOWS, PAYS A BARBER A GOAT A YEAR FOR DRESSING HIS HAIR WITH RED CLAY. The Wgogo of Dodoma give a goat once a year to a barber who does their hair for them. Doubtless the Wgogo, like the rest of us, never trifle with their toilet; yet, can there be an exquisite *sous-entendu* in making *hircus hircosus* the payment for the annual hair-cut?



A WOMAN OF THE SMALL XESIBI TRIBE LIVING IN GRIQUALAND EAST. The Xesibi women are somewhat shy and awkward, but still very eager to earn a few shillings by standing still. Blue and white beads are sewn on their garment.



THE HEAD OF A KUKUYU CHIEF WHO POSED TO MISS GORDON IN A HEAD-DRESS OF OSPREY FEATHERS. Miss Gordon writes: "I think he must have been used by some cinema people and been taught to copy every expression he saw on one's face. If I laughed, he laughed; if I frowned, he frowned."



N'CAMBE, A ZULU SURVIVOR OF THE BATTLE OF ISANDHLWANA. He fought against us in the battle of Isandhlwana in the "1st Cheka Regiment," but, later, became a most trusted British Secret Service man.

The name of Miss Hilda May Gordon will, no doubt, be familiar to many of our readers; her Exhibition, "Round the World on my Brush," held in 1928 at the Galleries of the Fine Art Society, was a résumé of her six years' tour round the world. An exhibition of her work is now open at the Leger

Galleries, 13, Old Bond Street, W. It is entitled, "Painted Africa," and a number of the remarkable paintings included in it are reproduced on this page. Miss Gordon was a pupil of Mr. Frank Brangwyn. She has travelled through forty different countries, in most of which she has held exhibitions.



A PAGE FOR COLLECTORS.

THE FRENCH COLOUR-PRINT: P. L. DEBUCOURT.

By FRANK DAVIS.

ON this page in the issue of Feb. 20 I ventured to suggest that the best starting-place for a study of French line-engraving was the famous series known as "Le Monument du Costume," and that one could then work backwards from this notable representation of late eighteenth-century manners. A similar suggestion is herewith put forward as an approach to the more complicated subject of the colour-print. The word "complicated" is used with reason, for the subject of this note was continually experimenting, and before the end of the

consent, his masterpiece. This is the large and crowded composition entitled "La Promenade Publique" (14½ inches by 23½ inches), in which he has managed to immortalise not merely the outward aspect, but the very chatter of a gay and thoughtless crowd of people who have not the least intention of allowing revolution and war to damp their exuberant spirits. The date of this print is 1792—not the happiest year in the history of the French nation, though less desperate than others that were to follow. A large print of this character loses so much by reproduction on a small scale that I illustrate only a fragment—insufficient to show the animation of the whole, but adequate to prove how vivid was the painter's sense of individual character, and how genuinely he enjoyed holding the mirror up to nature.

Let us go back to before the Revolution, and consider a print of a somewhat different character. In the Salon of 1785 appeared a painting by Debucourt entitled, "La feinte Caresse," which he engraved and published in the following year under the title of "Les deux Baisers" (The Two Kisses). To possess a fine impression of this famous plate is said to be the first ambition of every collector. Its importance lies not merely in its rarity, but in the fact that, after the first casual glance, one realises that here is something far removed from the insipidity which characterises the average print of the late eighteenth century. An old man in love has been fair game from time immemorial, but Debucourt has taken this hackneyed theme and given it an unexpected twist. The scene—which really requires no title—is not remarkable for subtlety, but it is most competently composed, and avoids those pretty trivialities of demeanour and expression which are apt to become so cloying in the ordinary, rather mannered print of the period. Both in this and in the first example mentioned, one is reminded irresistibly of the English Rowlandson; but a Rowlandson disciplined—I almost wrote dragooned—into a somewhat stiff refinement of style which gains in delicate charm what it lacks in vigour and gusto.

Unlike that of some of his fellow-workers, Debucourt's reputation survived the Revolution, and he engraved scenes of contemporary life under the Empire with no less invention and honesty of out-

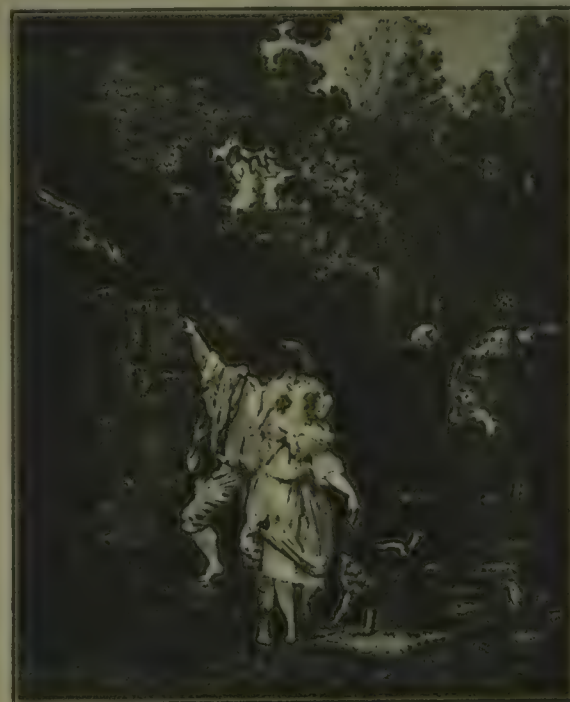


DEBUCOURT'S BEST-KNOWN COLOUR-PRINT: A DETAIL (RIGHT-HAND LOWER CORNER) OF "LA PROMENADE PUBLIQUE"; SHOWING DEBUCOURT'S SIGNATURE. (1792; 14½ IN. BY 23½ IN.)

century had used as many as ten different kinds of technique, sometimes by themselves and sometimes in combination. If any reader cares to pursue further the technical aspect of the French colour-print he will find the best explanation of the different processes in the introduction to the engraving section of the catalogue of the Debucourt Exhibition at the Musée des Arts Décoratifs, 1920.

It will be obvious that, in the days before photography, engraving was the only method of reproducing famous pictures for popular consumption, and it was the business of the engraver to copy, as faithfully as he could, the painter's original work: his job was not to create something new, but to translate into a different medium a design already in existence. It follows that the man engaged in this sort of work required a good eye, good taste, and a sure hand, but not any very great insight or originality.

Of the French colour-printers of the last part of the eighteenth century the subject of this note, Philibert Louis Debucourt, occupies an exceptional position, because, in his best period, he not only engraved his prints, but worked entirely from his own designs. It would be absurd to call him a satirist—that is too solemn a word—but his output does show an engaging, if not over-profound, understanding of the foibles of his contemporaries, a natural sense of fun, and not a trace of affectation. Of his many prints there is one, which is, by general



A CHARMING DEBUCOURT WITHOUT A HINT OF SATIRE: "L'ESCALADE, OU LES ADIEUX DU MATIN"—TWO FIGURES IN THE MOST DELICATE SHADE OF BLUE AGAINST A DARK BACKGROUND. (1787.)

look. Two in particular are of exceptional interest. One is "Les Courses du Matin, ou La Porte d'un Riche" (1805), in which we see a varied crowd waiting to enter a rich man's house: an artist with his picture under his arm; a pretty woman with two children, while a nurse carries another; a very haughty young man carrying a portfolio of drawings; an elderly man extraordinarily like Mr. Pickwick—in short, a typical crowd of people with things to sell and demands to make. The other—"Frascati" (1807)—shows us a rather stiff and well-dressed crowd gathered in a large room decorated in Empire fashion; one cannot help feeling that everybody is on his best behaviour, and that Society is no longer dominated by charming, if silly, people. On the contrary, these are pompous individuals, embarrassingly aware of what is expected of them. There is another, and earlier, "Promenade," which is but little inferior to "La Promenade Publique"—"La Promenade de la Gallerie du Palais Royal," issued in 1787, and, oddly enough, not signed by him, but bearing his address. This also is remarkable for the happy touch of caricature which reveals the mind of the artist no less than the mood of his subjects.

To the same year belongs a delightful print—"L'Escalade, ou Les Adieux du Matin"—two figures in the most delicate shades of light blue against a dark background. Here is no caricature at all, but a charm which has been known to melt the stony hearts of the most austere and the most puritanical—so pretty and so distinguished an engraving that, against one's better judgment, one is almost inclined to regret the slightly mordant tang of his more important and profound works.



LES DEUX BAISERS

A VERY WELL-KNOWN DEBUCOURT COLOUR-PRINT, FINE IMPRESSIONS OF WHICH ARE RARE: "LES DEUX BAISERS," ENGRAVED BY THE ARTIST FROM HIS OWN PICTURE, "LA FEINTE CARESSE," WHICH APPEARED IN THE SALON OF 1785.

Always popular with the Natives



GUINNESS
is good for
OYSTERS

THE CHRONICLE OF THE CAR.

BY H. THORNTON RUTTER.

BY the time these lines see print, the 367 competitors in the R.A.C. Motor Rally to Torquay will have arrived from London, Bath, Norwich, Leamington, Buxton, Harrogate, Liverpool, Newcastle-on-Tyne,

It is sure to be amusing as well as interesting, as the flexibility test starts with a run of 50 yards or so to permit the driver to change into top gear; then proceed as slow as possible on top gear for 100 yards, and 10 ft. in which to halt the car. Then, at the word "Go," competitors will start off from rest, and will have 10 ft. in which to get the car moving in any gear, for the acceleration test over another 100 yards distance. At the end of that stretch the car must be stopped as quickly as possible, and the distance taken to stop past the finishing line of the 100 yards will be measured to discover the braking efficiency.

On Saturday (March 5) there is the coachwork, or "beauty and comfort," exhibition, in which 270 cars will compete for prizes. They will receive 20 marks

respectively for elegance of appearance and comfort, 10 marks respectively for internal and external condition, 5 marks each for items—namely, internal convenience, luggage-carrying, and accessibility of

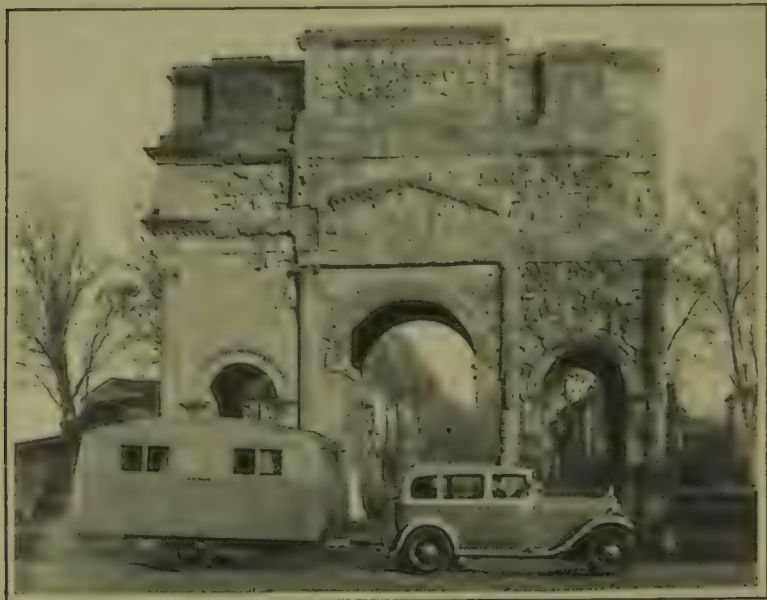
tool-kit; while the jury of judges can award a further 5 marks for special fittings of practical use in the running of the car. As there are six classes, and at least two prizes per class, besides many special ones, there should be many happy winners on Saturday

night when the prizes will be allocated. The Palace Hotel, Torquay, is the R.A.C. headquarters for the Rally, and Timpson's and the Grey Cars garages are the official parking places on arrival at Torquay.

British Cars' Increased Sales.

London and the Home Counties buy about one-third of all the motor-cars sold in England, so that statistics in regard to the Metropolis frequently show the trend of business. We all know that everybody prophesied that no one could expect an increased sale of motor-cars in January, or even in the first quarter of this year, until folks had recovered from the big increase of the income tax payment. Yet the London County Council record an increase of 6000 motor licences taken out that month. Another fact their official statement reveals is that the solid-tyred motor-vehicle is fast disappearing. That is the reason given why, although the number of vehicles has increased, the actual sum received for the Road

(Continued overleaf.)



MR. HAMILTON'S ENTRY IN THE TORQUAY RALLY: THE HILLMAN-ECCLES COMBINATION.

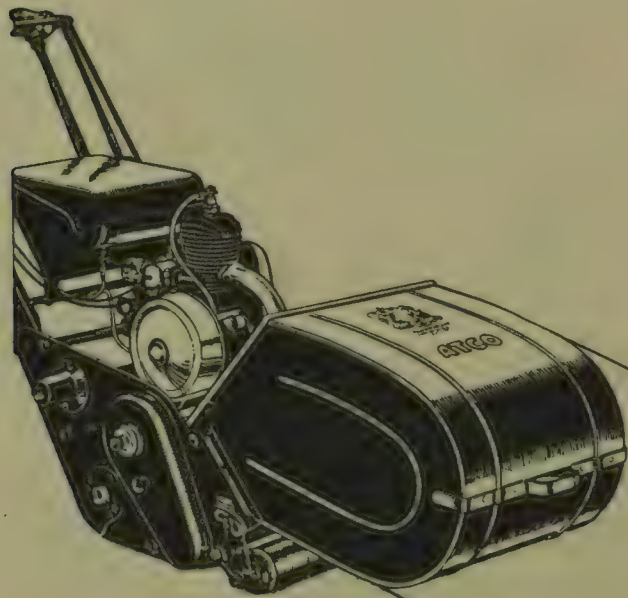
The Hillman-Eccles combination recently completed the Monte Carlo Rally with an average speed of twenty-three miles per hour over approximately 1000 miles, and thus proved that the trailer need be neither unsafe nor a hindrance on a holiday tour. Mr. Hamilton expects to average the twenty-five miles per hour required in the Torquay Rally.

and Edinburgh, at their destination, if good luck has been with them. To-day (Friday, March 4), the fun begins for the spectators at Torquay, who will be able to see all the cars take part in the gymkhana. Officially, this is called the flexibility, acceleration, and brake-efficiency test. However, it depends much on the weather as well as the skill of the driver as to the good or indifferent display of any car in such trials.



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Mr. Bobby Howes is now acting at the Saville Theatre in "For the Love of Mike," and his latest film, "Lord Babs," has just been released. Here he is seen with his wife and their new Austin "Six" saloon.



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(Continued.)

Tax is less by £60,000 that month than the corresponding period twelve months ago. The increased number of pneumatic-tyred goods and hackney vehicles which receive a rebate of 20 per cent. in tax rates as compared with solid rubber-tyred vehicles accounts chiefly for this reduction in receipts, together with more motorists taking out quarterly in place of full-year licences for their cars, owing to the extra cash, it is presumed, being paid to the Commissioners of the Inland Revenue as income tax. Consequently, such motorists have not given up their cars, but have taken out a quarter's licence to go on with until they can accumulate sufficient money to buy a part-year licence later on. The cotton trade is also improving, if one may judge by the motor revenue returns of Lancashire. That Council records an increase in registrations of motor-vehicles of 3200 licences for January. The increase consisted of an additional number of 1490 private cars, and 1252 more motor-cycles. Also the revenue increased by £7027 for that month. I am glad to see that at last there is an increase in the use of motor-cycles, which have been falling down in their numbers to an alarming condition since compulsory third-party insurance was made law. Very possibly the new 15s. light-cycle tax rate has helped to increase the number licensed, as these little machines are cheap to buy, yet capable of giving all the speed wanted for ordinary touring.

Inter-'Varsity Speed Trials.

The Oxford University Motor Club held its speed trial on Saturday, Feb. 27, over a course roughly three-quarters of a mile long, on the new Eynsham by-pass road near Oxford, not yet open to the public. The Cambridge University Automobile Club held their speed trials on the previous Saturday, and several of the O.U.M.C. members took part in the events, and expected that the Cambridge men were coming over to Eynsham to return the visit. Next year I hope somebody will arrange for a big inter-'Varsity speed contest on neutral ground. The new by-pass road from the London—High Wycombe route to Oxford cuts out that University town, as it leaves the Oxford road at Headington and joins the Gloucester and Witney highway the other side of Eynsham. Travellers westward who do not want to pass through Oxford's crowded streets in term time will be glad

when the road is completed and opened to the public. It also by-passes the River Thames, and so motorists escape crossing the toll-bridge at Swinford. The charge is 4d. for crossing this bridge with a car, and the new road will doubtless affect its revenues. It is one of the oldest toll bridges in England, dating back to the days of Charles II. The length of the new road is about nine miles, and involves the building of six bridges over the railway and tributaries of the Thames.

THE ROCKET AS AID IN SOLVING AIR PROBLEMS.

(Continued from Page 336)

sea-level, and only moderately well when transported to the top of a high mountain or sent up with a balloon. Could they be sent up to a height of 100 miles of so, and there allowed to function, we should have the answer to a problem that still perplexes the scientific world.

But, important as all these problems are, they fade into insignificance when compared with the problem that is now commencing to interest the layman as well as the physicist. I refer to the high-penetrating "hard," or "cosmic," rays. Though it is possible that these rays are in some way or other connected with the origin of life, it is also possible that they would immediately kill any living organism directly exposed to them. Here on earth there is no danger, as we are protected by the blanket of air that surrounds us, but at heights of fifteen miles or so, as has been proven by apparatus sent up in sounding balloons, they would be capable of making their presence distinctly felt. To what extent they would be injurious at a height of fifty or 100 miles is hard to say. What are these rays of which we know so little, and where do they come from? They are a form of hard Röntgen radiation, similar to the gamma-rays coming from radium-C, which originate only to a very small extent in the radium compounds in the earth. We now know that they are, in the main, of extra-terrestrial origin, coming, as they do, from certain star-groups and nebulae. Although it may be years before we are able to send up a rocket similar to that shown in the drawing opposite—a rocket carrying human observers as well as instruments—there is no good reason why, with our present technique, we should

not send up an instrument-carrying rocket that would bring back valuable information concerning these mysterious rays. As a matter of fact, the rocket which I constructed in 1930, and which exploded in February of last year with such disastrous results, was equipped with apparatus that would have measured the strength of the rays in question.

The rocket that I fired on Jan. 29, 1929, reached a height of nearly six miles. It carried in its tip instruments for recording density and temperature, and for obtaining a sample of the air at the rocket's culminating point. At the height registered (5.9 miles) the density was 212 mm.; the temperature, 48° below zero (Fahrenheit); and the composition almost exactly the same as that existing at sea-level.

CHESS.

CONDUCTED BY ERNEST IRVING.

TO CORRESPONDENTS.—Letters intended for this department should be addressed to the Chess Editor, "The Illustrated London News," 346, Strand, W.C.2.

SOLUTION OF PROBLEM No. 4093.—By T. C. EVANS (CLAPHAM).
[1SB4r; BplR4p; brS5; 1k1p4; pp3R2; r2p3K; 8; 4bQ2; in two.]
Keymove: R—B4(R4—c4); threat 2. RB5.

If 1. — PQ7 (dis.ch), 2. RB3; if 1. — K×R, 2. KtQ4; if 1. — P×R, 2. QB5; if 1. — RB6, 2. R×KtP; and if 1. — P Kt3, 2. B×B. Mr. Evans has provided a magnificent key, almost too good, as Mr. Wigau remarks, unpinning the Black pawn d3 and allowing a disclosed check. The experienced problemist will look first at a key which would startle the novice. The other mates are good, and the R at R1 is necessary to stop a cook by B×P.

CORRECT SOLUTION OF PROBLEM No. 4093 from J M K Lupton (Richmond); of No. 4094 from E Pinkney (Driffield), Julio Mond (Seville), Armand Godoy (Leysin), Alfred Morris (Carmarthen), J W Smedley (Brooklyn), J M K Lupton (Richmond), H Fenner (Buxton), E J Gibbs (East Ham), and P J Wood (Wakefield); of No. 4095 from Julio Mond (Seville), R B Cooke (Portland, Me.), Alfred Morris (Carmarthen), J W Smedley (Brooklyn), E G S Churchill (Blockley), J M K Lupton (Richmond), E Pinkney (Driffield), T K Wigau (Woking), Leonard Basset (Llanbadach), R Teasdale (Cardiff), M E Jowett (Grange-over-Sands), Miss M de Winton (Cheltenham), H Richards (Hove), and Armand Godoy (Leysin).

CORRECT SOLUTIONS OF GAME PROBLEMS LXVII. and LXVIII. from E Pinkney (Driffield), and of LXVIII. from R S Melrose.

ANSWERS TO CORRESPONDENTS.

M E JOWETT, R B COOKE, and OTHERS.—RQR8 will not solve No. 4093, because of KtB4.

R TEASDALE (CARDIFF).—It seems you are right about No. 4095, but, needless to say, it is a coincidence. It is quite easy, as you will appreciate, for two composers, using so few pieces, to hit on the same idea.

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One of the best things you can do to reduce acidity and combat auto-intoxication is to drink a glass of hot water with the juice of half a lemon every morning before breakfast. This is a splendid way to clean out the stomach and intestines, and make the whole digestive tract sweet and clean. You can make the hot water and lemon doubly effective by adding a tablespoonful of

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THE WORLD OF MUSIC.

FRENCH MUSICIANS IN LONDON.

WE have had during the past week two famous French musicians, Cortot and Maurice Ravel, appearing in public at the Queen's Hall. M. Ravel came to conduct the first performance in this country of his new Concerto for Pianoforte and Orchestra at the Royal Philharmonic Society's concert, and a large audience was attracted by the prospect of seeing the composer of the popular "Bolero" in person conduct a new work. Maurice Ravel is now fifty-seven years of age, and is the most prominent of contemporary French composers holding the position that Debussy held until his death. This is not to say that his work is comparable to Debussy's; on the contrary, it is quite dissimilar in style and certainly lacks the originality of the older composer. The new pianoforte concerto (which was admirably played by an excellent French pianist, Marguerite Long) is a thoroughly characteristic piece of Ravel's. The composer shows his usual skill and fluency; he has obviously studied the effects and style of the American jazz-bands, and uses some of their tricks with a refinement which, to my mind, is rather a dilution than an improvement of the originals. Nevertheless, a certain vivacity of rhythm remains, and, added to this, Ravel gives some very pleasant ear-tickling, of which the slow movement is a most soothing example. If played by a pianist less sensitive to surface tone-values than Mlle. Marguerite Long, this movement, however, might prove rather long-winded and dreary.

CORTOT AND BEETHOVEN.

I wonder whether the musical director of the B.B.C., Dr. Adrian Boult, or M. Cortot himself selected the Beethoven "Emperor" Concerto for this famous French pianist to play in the programme of the last B.B.C. symphony concert. If it was M. Cortot's own choice, it is an interesting example of a praiseworthy ambitiousness and a tribute to M. Cortot's musical ideals. For it must be admitted that M. Cortot has hardly got the technical virtuosity as a pianist—however highly gifted he may be

musically—to tackle such a formidable work in a way that would be wholly satisfactory. Pianistic virtuosity is quite separable from musical feeling, and very few pianists in the history of music have combined both qualities to a high degree.

From a technical standpoint, M. Cortot cannot be numbered among the virtuosi of the pianoforte, and this is not only because he sprinkles handfuls of wrong notes as plentifully as Anton Rubinstein is said to have done, for Rubinstein was a virtuoso, and his wrong notes were due to uncontrolled exuberance. It is because his technique hardly does justice to his musical feeling, and in listening to him at the B.B.C. concert, one realised that his conception of Beethoven's E flat concerto was on bigger lines than he could achieve. The seriousness and intensity of M. Cortot's playing almost redeemed its technical imperfections, and, in any case, his performance was superior to the many mechanical and lifeless readings of this great work which mere virtuosi give us. But with such performances of Beethoven's concertos in our minds as Artur Schnabel has given us in the last year or two, in which virtuosity and musicianship are combined, it cannot be said that Cortot's rendering of the E flat concerto was really satisfactory.

DOCTORS SARGENT AND BOULT.

Our two musical doctors are kept very busy in maintaining the standard of our orchestral playing. Dr. Sargent has a mixed orchestra at the Royal Philharmonic Society's concerts, and I was not impressed by its playing in the Haydn "Surprise" symphony, although it warmed up after the Ravel concerto; and the performances of the Eugene Goossens Concerto for Oboe and Orchestra and of de Falla's Suite, "El Amor Brujo," were much more satisfactory. Mr. Leon Goossens played his brother's concerto with his usual skill. It is an effective composition, but Eugene Goossens does not show much of himself in this work, for it is almost wholly derivative from French music of the end of the nineteenth century. The playing of the B.B.C. Symphony Orchestra varies greatly. I do not know whether it is due to overwork or to the occasional insensitivity of conductors, but its tone is sometimes very coarse and its expression crude. On this occasion,

under Dr. Adrian Boult, there was a slight improvement, which continued during the course of the programme; so that by the time we got to the Schubert C major symphony, after the interval, the orchestra was playing well, and Dr. Boult gave us a really fine performance. But this orchestra has a tendency to heaviness and coarseness, and Dr. Boult will have to take great care to prevent these ailments from becoming chronic.

W. J. TURNER.

GRAMOPHONE NOTES.

THE full text of the speech delivered by the Prince of Wales at the great meeting of young people organised by the National Council of Social Service was recorded as spoken at the Royal Albert Hall, and the records have been issued by "His Master's Voice." His Royal Highness has heard and approved this reproduction of his call to youth to give personal service. There are three different records, five sides being devoted to the speech, and the sixth to "Jerusalem" and the National Anthem as sung by the audience, led by a choir of young men conducted by Sir Walford Davies, with Dr. Henry Ley, of Eton College, at the organ. These unique records each bear a specially designed label in gold, purple, and red, with a signed portrait of the Prince. The Gramophone Company will devote the profits from the sales of these records to the National Council of Social Service, which has been nominated for that purpose by his Royal Highness.

A very vivid personality is introduced by "H.M.V." in their new list of records. Frances Day, a twenty-three-year-old artist, has for some time been famous on the stage and in cabaret performances, and now, by means of the gramophone, she will make a host of fresh friends with her enchanting one-woman play-songs. Her efforts are quite different from those of anyone else, for she has invented her own way of presenting dainty little episodes of life as seen through girlish eyes. Miss Day makes her début with two numbers on one record (B. 4068)—"I Don't Know Why" and "Old Playmates."



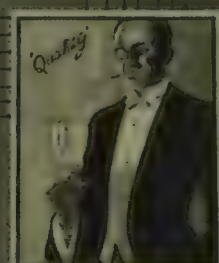
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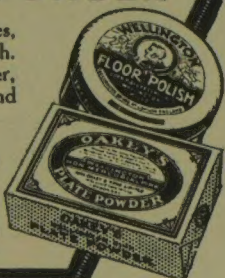
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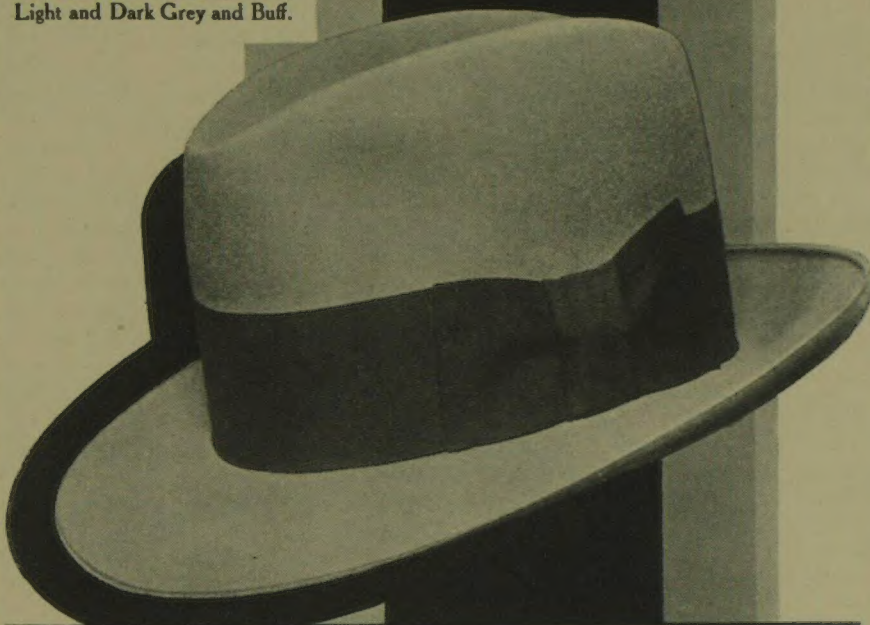
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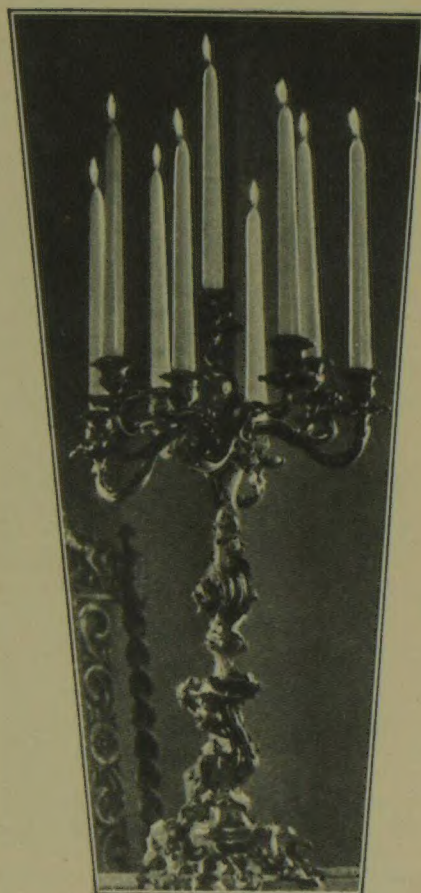
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THE PLAYHOUSES.

"DERBY DAY," AT THE LYRIC, HAMMERSMITH.

THE musical-comedy stage deals so exclusively with the nobility and gentry that it is a relief to encounter one that concerns itself with the loves of a barmaid and a tipster. It is fitting, too, that Sir Nigel Playfair's theatre, which rediscovered "The Beggar's Opera" and the joys of low life, should house it. Mr. A. P. Herbert's chief defect as a dramatist is that he thinks more of his rhymes than his plot, with the result that the play never really gets under way. His lyrics are more than witty; they have humanity and common sense to give them body; yet to a taste possibly perverted by modern musical comedy, a succession of songs, frequently leavened by only a few lines of dialogue, grows slightly tedious. This even though Mr. Alfred Reynolds is there to provide the accompanying tunes. Yet, despite its defects, this operette has a charm that lingers. Miss Tessa Deane is a delicious discovery. She can sing, she can act, and she has a warm humanity that made her worthy of the adoration she received from the Bottles and Jugs patrons of the Old Black Horse (which apparently is Epsom way). What did it matter that she stole £100 from the till of her trusting landlord? Who cared that she gave it to the bold, bad son (a student of divinity, by the way) of a puritanical baronet, to place on a horse? It not being our money, it was worth its loss to see them all, riverside labourers, costers, barmaids, and baronets, on their way to Epsom Downs. Very well staged this Epsom Downs scene, with its roundabouts on the top of the hill, its tipsters, coaches, bookmakers, and excited spectators following the race. Mr. Bruce Anderson gave a clever performance as a nastily-nice young

man, and Miss Mabel Sealby was excellent as an interfering lady M.P.

"SENTENCED," AT THE COMEDY.

A deftly constructed play, this work by Mr. Harold Simpson, though it is obviously the author's revue training that leads him to tell his story with "flash-backs" showing us incidents that happened twenty years earlier, rather than in a straightforward sequence. Its defect is that the principal character, whether as a K.C., Judge, or Lord Chancellor, never arouses our sympathy. He marries, at forty, a woman of the same age who can advance his career. He discards a mistress, the only woman he has really loved, with complete callousness. (That she herself is a harlot robs this scene, and her death, of any pathos.) With equal callousness he sentences an innocent man to death for her murder, and has the effrontery to defend himself on the ground that he was convinced the prisoner would be found insane and sent to Broadmoor. Mr. Frank Cellier played the K.C., as it appears to have been written, without any emotion. His performance was always competent, but never moving. Mr. Ion Swinley was effective as the neurotic "falsely accused," and Miss Sunday Wilshin did all that was possible with her one scene as the mistress.

With reference to the photographs of Venice under snow, which appeared in our issue of Jan. 9 last, we should like to explain that they were published on account of their beautiful and unusual effects, and not in any way as examples of the kind of weather to which the Venetians are accustomed. Snow is, of course, an exceedingly rare phenomenon in Venice, and, as several correspondents have pointed out, these particular photographs were taken during the exceptionally

severe winter of 1928-29, which affected the whole of Europe.

We offer our congratulations to Messrs. Abel Heywood and Son, Ltd., the well-known Manchester firm of newsagents, on their celebrating this year the centenary of their foundation. Messrs. Heywood have published on this occasion an extremely interesting booklet descriptive of their history, and illustrated with a reproduction of the portrait of the first Abel Heywood (who died in 1893) which hangs in the Manchester Town Hall. The booklet, which is entitled "Abel Heywood, Abel Heywood and Son, Abel Heywood and Son, Ltd.; 1832-1932," also contains a facsimile of a weekly newspaper of 1833—"The Poor Man's Guardian"—with one of the first occurrences of the firm's name, in the advertisement columns. Messrs. Heywood's history thus goes back to the bad old days of the Newspaper Stamp Act; and on the very good side it includes a long and happy association with *The Illustrated London News*.

We regret to find that, owing to wrong information given by the agency which supplied us with the photograph, the title under a picture in our issue of Feb. 6 was incorrect. We refer to a photograph which purported to show "Germany in opposition to the check upon her armaments—signing a protest alleging the unfairness of her position." The Disarmament Committee of the Women's International Organisations has written to us to say that, in fact, the photograph shows the signing by Germans of a petition in favour of world disarmament. Needless to say, we are sorry that such an error should have occurred. As we have already noted, it was due to wrong titling on the part of an agency. The signatures received for this German petition in favour of disarmament up to February numbered 1,129,892.

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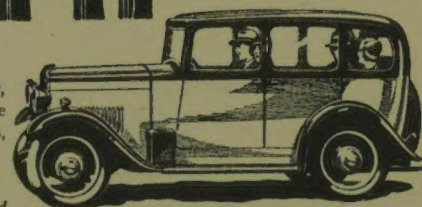
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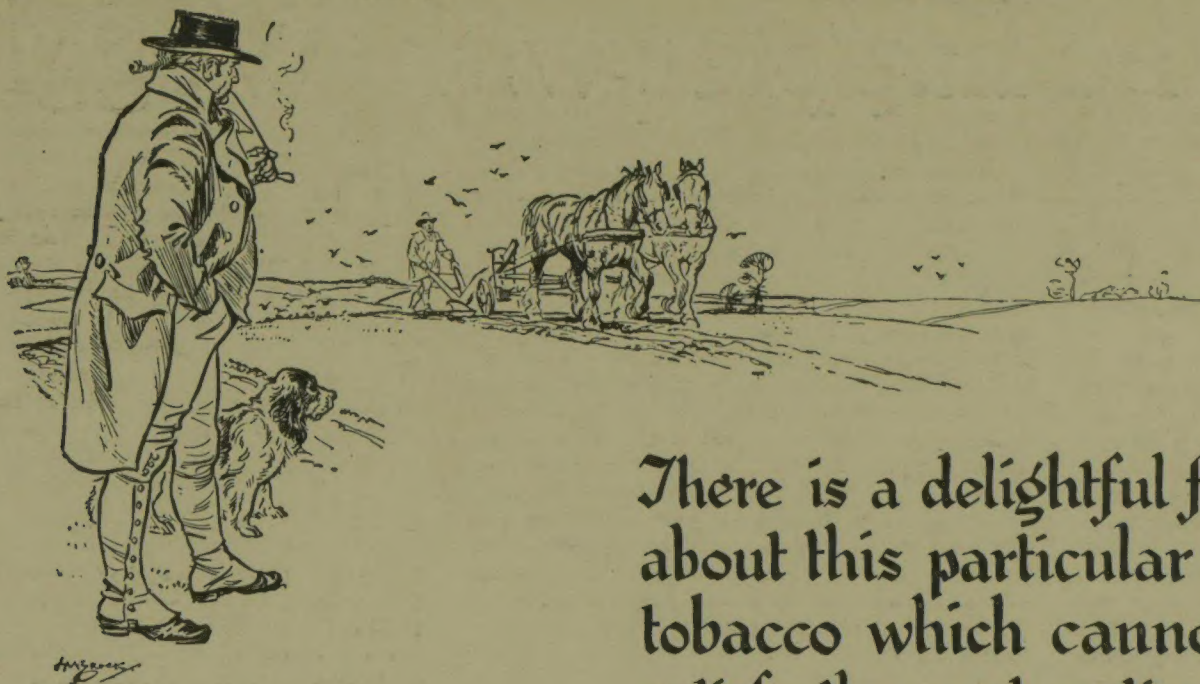
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